Galaxy
SCIENCE FICTION

NOVEMBER 1951
35¢
ANC



NOVEMBER 1951 GALAXY Science Fiction

Galaxy
SCIENCE FICTION

Editor-in-Chief
VERA CERUTTI

Editor H. L. GOLD

Assistant Editor
EVYLYN PAIG

Art Director
W. I. VAN DER POEL

Advertising Manager
JOHN ANDERSON

●

GALAXY *Science Fiction* is published monthly by Galaxy Publishing Corporation. Main offices: 421 Hudson Street, New York 14, N. Y. 35c per copy. Subscriptions: (12 copies) $3.50 per year in the United States, Canada, Mexico, South and Central America and U.S. Possessions. Elsewhere $4.50. Entered as second-class matter at the Post Office, New York, N. Y. Copyright, 1951, by Galaxy Publishing Corporation. Bernard Kaufman, president. Vincent Parisi, treasurer. Vera Cerutti, secretary. All rights, including translation, reserved. All material submitted must be accompanied by self-addressed stamped envelopes. The publisher assumes no responsibility for unsolicited material. All stories printed in this magazine are fiction, and any similarity between characters and actual persons is coincidental.

November, 1951 Vol. 3, No. 2

CONTENTS

NOVELETS

SEA LEGS
by Frank Quattrocchi 4

SELF PORTRAIT
by Bernard Wolfe 58

SHORT STORIES

TIGER BY THE TAIL
by Alon E. Nourse 42

ZERITSKY'S LAW
by Ann Griffith 51

PSYCHOTENNIS, ANYONE?
by Lloyd Williams 84

BOOK-LENGTH SERIAL—Conclusion

THE PUPPET MASTERS
by Robert A. Heinlein 101

FEATURES

EDITOR'S PAGE
by H. L. Gold 2

GALAXY'S FIVE STAR SHELF
by Groff Conklin 97

Printed in the U. S. A. Reg. U. S. Pat Off

The Current GALAXY *Science Fiction* Novel . . .

EMPIRE

BY CLIFFORD D. SIMAK

Another ORIGINAL book-length story in the GALAXY Novels series . . . never before published in any form!

It's a gigantic Simakian concept: Power exists everywhere, just waiting to be tapped; but what happens when the scientists who discover a source of cheap and unlimited power clash with a monopoly based on scarce and costly energy?

Action, intrigue and suspense are the answer, and you'll find those exciting ingredients in astronomical profusion in this power-charged story of interplanetary competition!

The price is only 35c (no postage or handling charge) or $2.00 for a full year (six issues) to . . .

GALAXY *Science Fiction*
421 Hudson Street
New York 14, N. Y.

☆

The Next GALAXY *Science Fiction* Novel . . .

ODD JOHN

BY OLAF STAPLEDON

Many authors have tried to write the story of Homo Superior and have failed—it's like Pithecanthropus describing Modern Man, an obviously overwhelming task. But Stapledon succeeded! This is THE masterpiece of the super-race that may some day replace Homo Sapiens! Compellingly convincing, ODD JOHN is truly a great work of science fiction!

Step Outside

LAST month, one of the questions raised was whether a science fiction magazine can afford to have a viewpoint, and, if so, if it can impose the viewpoint on its stories.

An editor has his own opinions and convictions, of course, many of which are outraged by stories submitted to him. Should he take only those that agree with his opinions?

What makes this important is the occasional anguished or angry letter revealing that that particular reader has had his mental corns stepped on. Avoiding offense would be a cinch—simply pick stories that say nothing at all. Enough come in every month, devoid of everything but witless action or trivial surprise, to fill a dozen issues.

But is that the purpose of science fiction? Perhaps we need a definition of purpose.

The first goal, naturally, is entertainment, a word, by the way, that makes rubber seem inflexible by contrast. It ranges all the vast distance from staring through keyholes to staring through telescopes, from racetracks to treatises, scatology to seismography.

In science fiction, the range is just as enormous. It goes from a scant step above the comics to a scant step below textbooks. The widest audience is between these two extremes, and that is where GALAXY stands. It strives for interesting ideas, characters, conflict, situations, backgrounds, and these are the ingredients of entertainment for all but the most specialized repetitive satisfactions, such as rest room artistry, crossword puzzlement, and higher math addiction.

What science fiction must present entertainingly is speculation. Not prophecy, but fictional surmises based on present factors, scientific, social, political, cultural, or whatever. When a story hits a future development on the head, it should be considered a minor accident; its main job was not to *predict,* but to *conjecture* what might happen if certain circumstances followed certain lines of development.

Take the case of television. Anticipating it in 1900 was a technological feat—and that was exactly how it was presented, a sideshow wonder to awe those who read of it. But we who live with

TV's Uncle Miltie, nightly murder, the resurrected cadaver of vaudeville, frighteningly stupid and stupidly frightening "kiddie" shows, the idiot quizzes and amateur bours, know that the impact is overwhelmingly social and cultural, rather than technological.

Any science fiction writer can and does predict gadgets and obvious trends by the score. But the gadgets and trends alone mean nothing. Enough authors have described World War III so completely that it will be somewhat of an anti-climax if it ever does come. And interplanetary flight, time travel, extraterrestrial invasion, and all the other basic situations in science fiction.

Will these worlds ever exist? They may or may not; it doesn't matter. The *possibility* is what counts in science fiction, not the *certainty*.

Now the question is whether writer, editor and reader must be in favor of these possible developments. Again, it doesn't matter. If the writer who predicted television in 1900 could have foreseen its dismaying results, he should still have had to describe them dramatically, and the more objectivity he could attain, the better.

Coming Attraction by Fritz Leiber is such a case. It told with shocking realism the moral collapse that *might* occur as a result of brutalizing warfare. Did Leiber favor it? Did I? Did the thousands of readers who admired it, the editors of anthologies who fought to reprint it first, the authors who almost bitterly envied its stunning craftsmanship? Of course not, any more than the prediction of the effects of TV would have had to involve the author's approval. Yet several readers attacked the story on exactly that basis, though history records similar moral breakdowns after other wars.

The Fireman by Ray Bradbury, *Dark Interlude* by Fredric Brown and Mack Reynolds, *To Serve Man* by Damon Knight, *Common Denominator* by John D. MacDonald, and several other GALAXY stories were interpreted by some readers as in one way or another approving *possible* trends that might not prove pleasant *if* they ever occurred.

But the writers are not saying that these extrapolations are anything more than possibilities. They are examining prospects, pleasant and unpleasant alike, and that, if it produces good stories, is the legitimate province of science fiction.

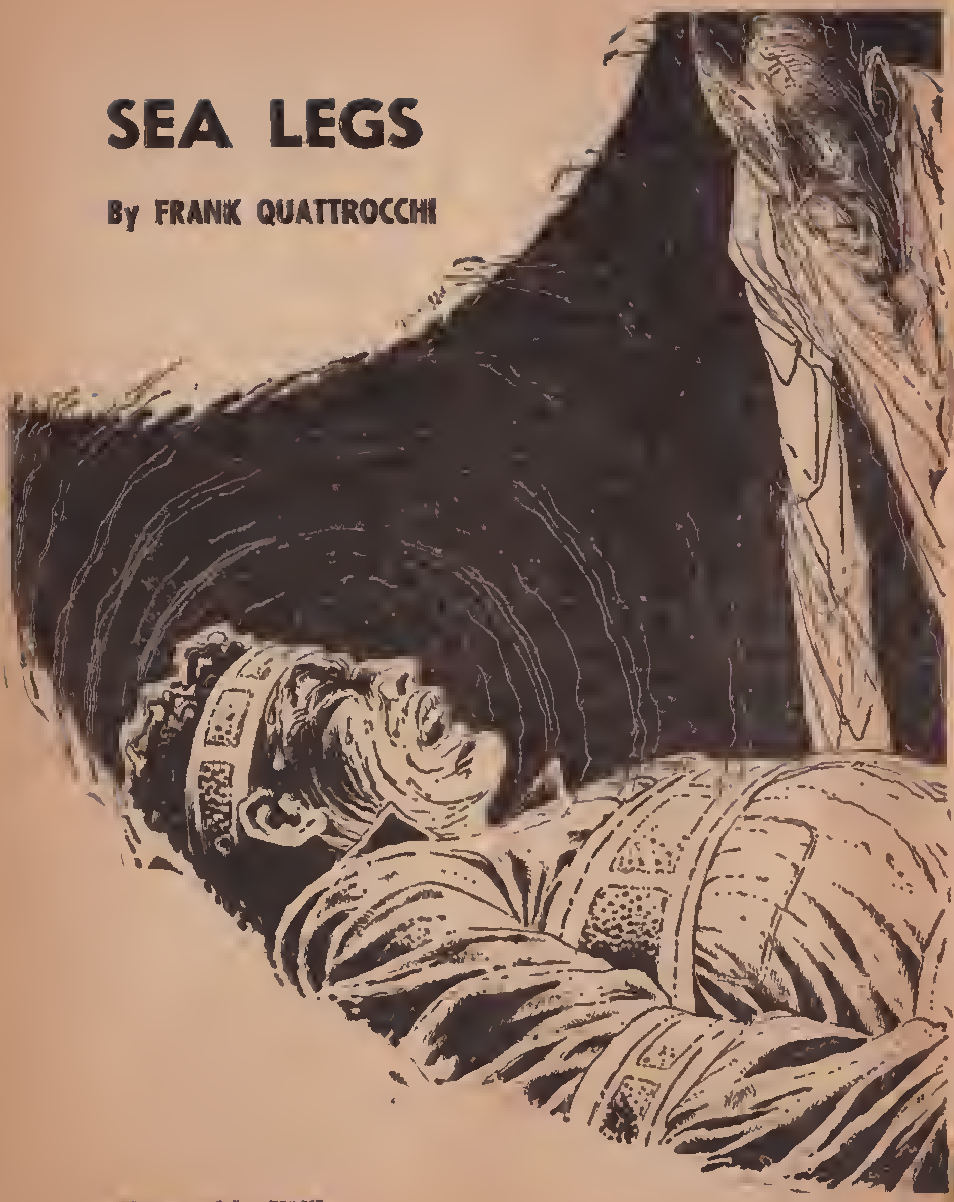
I think moralizing should be left to ministers, while commentators and astrologers keep their claim to 20/20 foresight.

Anyone disagree?

— H. L. GOLD

SEA LEGS

By FRANK QUATTROCCHI



Illustrated by EMSH



Rootless and footloose, a man in space can't help but dream of coming home. But something nobody should do is bet on the validity of a homesick dream!

FLIGHT Officer Robert Craig surrendered the tube containing his service record tapes and stood waiting while the bored process clerk examined the seal.

"Your clearance," said the clerk.

Craig handed him a battered punch card and watched the man insert it in the reproducer. He felt anxiety as the much-handled card refused for a time to match the instrument's metal contact points. The line of men behind Craig fidgeted.

"You got to get this punched by Territorial," said the clerk. "Take it back to your unit's clearance office."

"Look again, Sergeant," Craig said, repressing his irritation.

"It ain't notched."

"The hell it isn't."

The man examined the card with squinting care and nodded finally. "It's so damn notched," he complained. "You ought to

take care of that card; can't get on without one."

Craig hesitated before moving.

"Next," said the clerk. "What you waiting for?"

"Don't I take my 201 file?"

"We send it on ahead. Go to Grav 1 desk."

A murmur greeted the order. Craig experienced the thrill of knowing the envy of the others. Grav 1—that meant Terra. He crossed the long, dreary room, knowing the eyes of the other men were upon him.

"Your service tapes," the next noncom said. "Where you going?"

"Grav 1 — Terra," fumbled Craig. "Los Angeles."

"Los Angeles, eh? Where in Los Angeles?"

"I—I—" Craig muttered, fumbling in his pockets.

"No specific destination," supplied the man as he punched a key on a small instrument. "Airlock ahead and to your right. Strip and follow the robot's orders. Any metal?"

"Metal?" asked Craig.

"You know, *metal*."

"Well, my identification key."

"Here," commanded the clerk, extending a plastic envelope.

Craig moved in the direction indicated. He fought the irrational fear that he had missed an important step in the complicated clerical process. He cursed the grudging attitude of the headquarters satellite personnel and felt the impotence of a spaceman who had long forgotten the bureaucracy of a rear area base. The knowledge that much of it was motivated by envy soothed him as he clumsily let himself into the lock.

"Place your clothing in the receptacle provided and assume a stationary position on the raised podium in the center of the lock."

Craig obeyed the robot voice and began reluctantly to remove his flight jacket. Its incredibly fine-grained leather would carry none of the strange, foreign associations for the base station clerk who would appropriate it. He would never know the beautiful, gentle beast that supplied this skin.

"You are retarding the progress of others. Please respond more quickly to your orders."

Craig quickly removed the last of his clothing. It was impossible to hate a robot, but one could certainly hate those who set it into operation.

"You will find a red button at your feet. Lower your head and depress that button."

Stepping on the button with his bare foot produced an instant of brilliant blue illumination. A small scratch on his arm stung briefly and he was somewhat blinded by the flash even through his eyelids, but that was all there

was to the sterilizing process.

"Your clothing and effects will be in the dressing room immediately beyond the locked door."

He found his clothing cleanly and neatly hung on plastic hangers just inside the door to the dressing room. The few personal items he carried in his pockets were still there. The Schtaan flight jacket was actually there, looking like new, its space-blue unfaded and as wonderfully pliant as before.

"Insert your right arm into the instrument on the central table," commanded the same voice he had heard before. "Turn your arm until the scratch is in contact with the metal plate. There will be a slight pain, but it is necessary to treat the small injury you have been disregarding."

Craig obeyed and clenched his teeth against a sharp stinging. His respect for the robot-controlled equipment of bases had risen. When he withdrew his arm, the scratch was neatly coated with a layer of flesh-colored plastic material.

He dressed quickly and was on the verge of asking the robot for instructions, when a man appeared in the open doorway.

"I am Captain Wyandotte," said the man in a pleasant voice.

"Well, what's next?" asked Craig somewhat more belligerently than he had intended.

The man smiled. "Your reaction is quite natural. You are somewhat aggressive after Clerical, eh?"

"I'm a little anxious to get home, I suppose," said Craig defensively.

"By 'home' you mean Terra. But you've never been there, have you?"

"No, but my father—"

"Your parents left Terra during the Second Colonization of Cassiopeia II, didn't they?"

"Yes," Craig said. He was uncomfortable; Wyandotte seemed to know all about him.

"We might say you've been away quite a while, eh?"

"I was entered as a spaceman when I was 16," Craig said. "I've never been down for any period as yet."

"You mean you haven't been in a gravity system?"

"Oh, I've landed a few times, e v e n w a l k e d around for a while . . ."

"With the help of paraoxylnebutal," supplied the captain.

"Well, sure."

"Mr. Craig, I suppose you've guessed that the next step in our little torture system here is psych."

"So I gathered."

The captain laughed reassuringly. "No, don't put up your guard again. The worst is over. Short of Gravitational condition-

ing, there is nothing to stop you from going to Terra."

"Sorry, I guess I'm a little touchy. This is my first time . . ."

"Quite natural. But it being your first time—in quite a number of ways, I might add—it will be necessary for you to undergo some conditioning."

"Conditioning?" asked Craig.

"Yes. You have spent eleven years in space. Your body is conditioned to a normal state of free fall, or at best to a state of acceleration."

"Yeah, I know. Once on Gerymeade . . ."

"You were ill, couldn't keep your balance, felt dizzy. That is why all spacemen carry PON, paraoxylnebutal, with them. It helps suppress certain physiological reactions to an entirely new set of conditions. Channels of the ear, for example. They play an important part in our awareness of balance. They operate on a simple gravity principle. Without gravity they act up for a time, then gradually lose function. Returning to gravity is rather frightening at first."

"I know all about this, Captain."

"You've undoubtedly read popularizations in tapezines. But you have experienced it briefly."

"I expect to have some trouble at first." Craig was disturbed by the wordy psychologist. What was the man actually saying?

"Do you know what sailors of ancient times meant by 'sea legs?'" asked Wyandotte. "Men on a rolling ocean acclimated themselves to a rolling horizontal. They had trouble when they went ashore and the horizontal didn't roll any more."

"It meant more than that. There were excellent psychological reasons for the old stereotype, the 'drunken sailor.' A port city was a frightening thing to an old sailor—but let's begin our little job at the beginning. I'll turn you over to psychometry for the usual tests and pick you up tomorrow morning at, say, 0900."

DURING the days that followed, the psychologist seemed to Craig to become progressively more didactic. He would deliver long speeches about the "freedom of open space." He spoke repetitiously of the "growing complexity of Terran society." And yet the man could not be pinned down to any specific condition the spaceman would find intolerable.

Craig began to hate the delay that kept him from Terra. Through the ports of the headquarters base satellite, he scanned the constellations for the scores of worlds he had visited during his eleven years in space. They were incredibly varied, even those

that supported life. He had weathered difficult landings on worlds with rip-tide gravities, had felt the pull of the incredible star-tides imparted by twin and even triple star systems. He had been on Einstein IV, the planet of eight moons, and had felt the pulse of all eight of the satellites at once that no PON could completely nullify.

But even if he could accept the psychologist's authority for the cumulative effect of a gravity system, he could not understand the unspoken warning he felt underlying all that the man said.

"Of course it has changed," Craig was protesting. "Anyway, I never really knew very much about Terra. So what? I know it won't be as it was in tapezines either."

"Yet you are completely sure you will want to live out your life there, that you are willing to give up space service for it."

"We've gone through this time and time again," Craig said wearily. "I gave you my reasons for quitting space. We analyzed them. You agreed that you could not decide that for me and that my decision is logical. You tell me spacemen don't settle down on Terra. Yet you won't—or can't—tell me why. I've got a damned good job there—"

"You may find that 'damned good jobs' become boring."

"So I'll transfer. I don't know what you're trying to get at, Captain, but you're not talking me out of going back. If the service needs men so badly, let them get somebody else. I've put in *my* time."

"Do you really think that's my reason?"

"Sure. What else can it be?"

"Mr. Craig," the psychologist said slowly, "you have my authorization for you to return to Terra as a private citizen of that planet. You will be given a very liberal supply of PON—which you will definitely need. Good luck. You'll need that too."

ON the eighth day, two attendants, who showed the effects of massive doses of PON to protect themselves from the centrifugal force, had to carry a man out of the tank. Many others asked to be removed, begged to be allowed to withdraw their resignations.

"The twelfth day is the worst," a grizzled spaceman told Craig. "That's when the best of 'em want out."

Craig clenched the iron rung of his bed and struggled to bring the old man's face into focus.

"How . . . how do they know when you ought . . . to come out?" he asked between waves of nausea.

"Blood pressure. They get you

just before you go into shock."

"How can they tell?" Craig fought down his growing panic. "I can't."

"That strap around your belly. You mean you ain't noticed it?"

"Haven't noticed much of anything."

"Well, it's keyed to give them some kind of signal."

The old man lapsed into silence. Craig wished him to continue. He desperately wanted something to distract his mind from the ghastly conditioning process.

Slowly at first, the lines formed by seams in the metal ceiling began to bend. Here it came again!

"Old man!" shouted Craig.

"Yeah, son. They've dropped it down a notch."

"Dropped . . . it . . . down?"

"Maybe that ain't scientific, but it's the way I always think of it."

"Can't they . . . drop it down continuously?"

"They tried that a few times — once when I was aboard. You wouldn't like it, kid. You wouldn't like it at all."

"How . . . many times . . . do they drop it?"

"Four times during the day, three at night. Twenty days."

A nightmare of visual sensations ebbed into Craig's mind. He was vaguely aware of the moans of other men in the vaultlike room. Wave upon wave of nausea swept him as he watched the seam lines bend and warp fantastically. He snapped his eyelids shut, only to begin feeling the nightmarish bodily sensations once more. He felt the cot slowly rise longitudinally, felt himself upside down, then the snap of turning right side up once more—and he knew that neither he nor the cot had moved so much as an inch.

Craig heard the voices around him, muffled, as though talking through wadding.

". . . got it bad."

"We better take him out."

". . . pretty bad."

"He'll go into shock."

". . . never make it the twelfth."

"We better yank him."

"I'm . . . all right," Craig mumbled at the voices. He struggled with the bonds of his cot. With terrible effort he forced his eyes open. Two white-clad figures, ridiculously out of proportion, hovered wraithlike over him. Four elongated eyes peered at him.

Attendants coming for to take me home . . .

"Touch me and I'll kick your teeth in!" he yelled. "I'm going to Terra. Wish you were going to Terra?"

Then it was better. Oddly, he passed the twelfth day easily. By the fourteenth day, Craig

knew he could stand Grav 1. The whine of the centrifuge's motors had diminished to a low hum. Either that or they had begun to produce ultra-sonic waves. Craig was not sure.

Most of the men had passed through the torments of gravitational conditioning. The huge headquarters base centrifuge aboard the man-made satellite had gradually caused their bodies to respond once more to a single source of pull. They were now ready to become inhabitants of planets again, instead of free-falling ships.

On the eighteenth day, automatic machinery freed them from their imprisoning cots. Clumsily and awkwardly at first, the men began to walk, to hold their heads and arms in proper attitudes. They laughed and joked about it and kidded those who were slow at adjusting. Then they again began taking para-oxylnebutal in preparation for the free-fall flight to Terra.

Only one of the score of men in the centrifuge tank remained voluntarily in his cot.

"Space article violator," the old man informed Craig. "Psycho, I think. Went amuck with some extraterritorials. Killed a dozen."

"What will they do, exile him?"

"Not to Chociante, if that's what you mean. They just jerked his space card and gave him a one-way ticket to Terra."

"For twelve murders?" asked Craig incredulously.

"That's enough, son." The old man eyed Craig for an instant before looking away. "Pick something to talk about. What do you figure on doing when you get to Terra, for instance?"

"I'm going into Import. My father was in it for twenty years."

"Sure," said the old spaceman, watching a group of young crewmen engaged in an animated conversation.

"It's a good job. There's a future to it."

"Yeah."

Why did he have to explain anything at all to the old space tramp?

"Once I get set up, I'll probably try to open my own business."

"And spend your weekends on Luna."

Craig half rose from his cot, jarred into anger.

But the old spaceman turned, smiling wryly. "Don't get hot, kid. I guess I spent too long in Zone V." He paused to examine his wrinkled hands. They were indelibly marked with lever callouses. "You get to thinking anyone who stays closer'n eighty light years from Terra is a landlubber."

Craig relaxed, realizing he had acted childishly. "Used to think

the same. Then I took the exam and got this job."

"Whereabouts?"

"Los Angeles."

The old man looked up at Craig. "You don't know much about Terra, do you, son?"

"Not much."

"Yeah. Well, I hope you ain't disappointed."

"My father was born there, but I never saw it. Never hit the Solar System, matter of fact. Never saw much of anything close up. I stood it a long time, old man, this hitting atmospheres all over the Universe."

But the spaceman seemed to have lost interest. He was unpacking some personal belongings from a kit.

"What are you doing in Grav 1?" Craig asked.

The old man's face clouded for an instant. "In the old days, they used to say us old-timers acted like clocks. They used to say we just ran down. Now they got some fancy psychology name for it."

Craig regretted his question. He would have muttered some word of apology, but the old man continued.

"Maybe you've read some of the old sea stories, or more'n likely had 'em read to you. Sailors could go to sea until they just sort of dried up. The sea tanned their skins and stiffened their bones, but it never stiffened their hearts. When they got old, it just pulled them in.

"But space is different. Space is raw and new. It tugs at your guts. It sends the blood rushing through your veins. It's like loving. You don't become a part of space the way you do the old sea, though. It leaves you strictly alone. Except that it sucks you dry, takes all the soup out of you, leaves you brittle and old—old as a dehydrated piece of split leather.

"Then one day it shoots a spurt of blood around in one of your old veins. Something gives. Space is through with you then. And if you can stand this whirligig conditioning, you're through with space."

"YOU can't figure it. Some of 'em urp all over and turn six shades of green."

"You got to watch the ones that don't."

"Yeah, you got to watch the ones that don't. Especially the old ones."

"He's old. You think it was his heart?"

"Who knows?"

"They'll dump him, won't they?"

"After a tracer is sent through. But it won't do any good."

"He probably outlived everybody that ever knew him."

"Wouldn't be surprised. Here, grab his leg."

ROBERT Craig folded the flight jacket tightly and stuffed it into the cylindrical carton. A sleeve unwound just as he did so, making it difficult to fit into the place he had made for it. Exasperated, he refolded it and jammed it in place. Smaller rolls of underclothing were then fitted in. When he was satisfied with the layer, he tossed in a small handful of crystals and began to fill the next layer. After the carton was completely filled, he ignited the sealing strip and watched as the plastic melted into a single, seamless whole. It was ready for irradiation. Probably in another ten years his son-to-be would put it on and play spaceman. But Craig swore he'd make sure that the kid knew what a stinking life it was.

At 1300 hours, the ferry bumped heavily alongside the starboard lock. It was the signal for relief in the passengers' quarters; many were beginning to feel a reaction to the short free-fall flight from the headquarters satellite.

The audio called out: "Flight Officer Robert Craig. Flight Officer Robert Craig. Report to Orderly 12. Report to Orderly 12 through the aft door."

With pangs of anxiety he could not completely suppress, Craig obeyed.

Orderly 12 handed him a message container.

"Who's it from? Somebody on Terra?"

"From a private spaceman named Morgan Brockman."

"*Brockman?*"

"He was with you in the grav tank."

"The old man!"

The message container produced a battered punch card. Craig straightened it and was about to reach into his pocket for a hand transcriber. But then he noticed the card bore only a few irregular punches and was covered with rough hand printing.

Son, when the flunkies get around to giving you this, they'll have shot me out the tube. How do I know? Same way you know when your turbos are going to throw a blade. It's good this way.

There's something you can do for me if you want to. Way back, some fifty years ago, there was a woman. She was my wife. It's a long story I won't bother you with. Anyway, I left her. Wanted to take her along with me, but she wouldn't go.

Earth was a lot different then than it is now. They don't have to tell me; I know. I saw it coming and so did Ethel. We talked about it and I knew I had to go. She wouldn't or couldn't go. Wanted me to stay, but I couldn't.

I tried to send her some units once in a while. Don't know if she ever got them. Sometimes I forgot to send them at all. You know, you're way out across the Galaxy, while she's home.

Go see her if you can, son. Will you? Make sure she gets the unit transfer

I made out. It isn't much out of seventy years of living, but she may need it. And maybe you can tell her a little bit about what it means to be out there. Tell her it's open and free and when you got hold of those levers and you're trying for an orbit on something big and new and green . . . Hell, you remember. You know how to tell her.

Her name is Ethel Brockman. I know she'll still use my name. Her address is or was East 71, North 101, Number 4. You can trace her easy if she moved. Women don't generally shove off and not leave a forwarding address. Not Ethel, at least.

Craig put the battered card in his pocket and walked back through the door to the passenger room. How did you explain to an old woman why her husband deserted her fifty years before? Some kind of story about one's duty to the Universe? No, the old man had not been in Intergalactic. He had been a tramp spaceman. Well, why *had* he left?

Fifty years in space. *Fifty* years! Zone V had been beyond anybody's imagination that long ago. He must have been in on the first Cetusian flights and shot the early landings in Cetus II. God only knew how many times he had battled Zone 111b pirates . . .

Damn the old man! How did one explain?

CRAIG descended the ramp from the huge jet and concentrated on his impressions. One day he would recall this moment, his first on the planet Terra. He tried to recall his first thrill at seeing Los Angeles, 1500 square miles of it, from the ship as it entered the atmosphere.

He was about to step off the last step when a man appeared hurriedly. A rather plump man, he displayed a toothy smile on his puffy red face.

"A moment, sir. Just a little greeting from the Terra. You understand, of course. Purely routine."

Craig remained on the final step of the ramp, puzzled. The man turned to a companion at his right.

"We can see that this gentleman has come from a long, long way off, can't we?"

The other man did not look up. He was peering into what seemed to Craig to be a kind of camera.

"We can allow the gentlemen to continue now, can't we? It wasn't that we believed for a minute, you understand . . . purely routine."

Both men were gone in an instant, leaving Craig completely bewildered.

"You goin' to move on, buddy, or you want to go back?"

Craig turned to face a line of his fellow passengers up the ramp behind him.

"Who was that?" Craig asked.

"Customs. Bet you never got

such a smooth screening before, eh?"

"You mean he *screened* me? What for?"

"Hard to say," the other passenger said. "You'll get used to this. They get it over with quick."

Craig made his way toward the spaceport administration building. His first physical contact with Terra had passed unnoticed.

"Sir! Sir!" cried a voice behind him.

He wheeled to see a man walking briskly toward him.

"You dropped this, sir. Quite by accident, of course."

Craig examined the small object the man had given him before rushing off toward an exit.

It was an empty PON tube he had just discarded. He couldn't understand why the man had bothered until he realized that the plastaloid floor of the lobby displayed not the faintest scrap of paper nor trace of dirt.

THE Import personnel man was toying with a small chip of gleaming metal. He did not look directly at Craig for more than an instant at a time, and commented on Craig's description of his trip through the city only very briefly between questions.

"It's a good deal bigger than I imagined," Craig was saying. "Haven't seen much of it, of course. Thought I'd check in here with you first."

"Yes, naturally."

"Thought you could give me some idea of conditions . . ."

"Conditions?"

"For instance, what part of the city I should live in. That is, what part is closest to where I'll work."

"I see," said the man noncommittally. It seemed to Craig that he was about to add something. He did not, however, but instead rose from his chair and walked to the large window overlooking an enormous section of the city far below. He stared out the window for a time, leaving Craig seated uncomfortably in the silent room. There was a distracted quality about him, Craig thought.

"You are the first man we have had from the Intergalactic Service," the personnel man said finally.

"That so?"

"Yes." He turned to face Craig briefly before continuing. "You must find it very strange here."

"Well, I've never seen a city so big."

"Yes, so big. And also . . ." He seemed to consider many words before completing the sentence. "And also different."

"I haven't been here very long," said Craig. "Matter of fact, I haven't been anywhere very long. This is my first real experience

with life on a planet. As an adult, anyway."

The personnel man seated himself once more and pressed a button on a small instrument. A secretary entered the office from a door to Craig's left.

"Miss Wendel, this is Mr. Craig. Mr. Craig, my secretary. Mr. Craig will enter Minerals and Metals, Zone V."

They exchanged formal greetings. She was a moderately pretty girl of medium height and, to Craig, a pleasantly rounded figure. He would have attempted to catch her eye had she not immediately occupied herself with unfolding the legs of a small instrument she was carrying.

"This is Mr. Craig's first landing on Terra, Miss Wendel," the personnel man continued. "Actually, we shall have to consider him in much the same way we would an extraterrestrial."

The girl glanced at Craig, casting him a cool, impersonal smile.

"He was formerly a flight officer in the Intergalactic Space Service." The statement was delivered in an almost exaggeratedly casual tone.

The girl glanced at him once more, this time with a definite quizzical look in her brown eyes.

"Three complete tours of duty, I believe."

"Four," corrected Craig. "Four tours of three years each, minus a year's terminal leave."

"I take it you have no identification card?" the man asked.

"The one I held in the service. It's pretty comprehensive."

The other turned to the secretary. "You'll see that he is assisted in filing his application, won't you? A provisional Code II. That will enable you to enter all Import offices freely, Mr. Craig."

"Will he need a food and—clothing ration also?" asked the girl, without looking at Craig.

"Yes." The man laughed. "You'll excuse us, Mr. Craig. We realize that you couldn't be expected to be familiar with Terra's fashions. In your present outfit you would certainly be typed as a . . . well, you'd be made uncomfortable."

Craig reddened in spite of himself. He had bought the suit on Ghandii.

"A hick," he supplied.

"I wouldn't go that far, but some people might."

CRAIG noted the pleasant way the girl filled her trim, rather severe business suit. He amused himself by calculating stress patterns in its plain woven material as she assembled the forms for him.

"Here, Mr. Craig. I believe these are complete."

"They look pretty complicated."

"Not at all. The questions are quite explicit."

Craig looked them over quickly.

"I guess so. Say, Miss Wendel, I was wondering—I don't know the city at all. Maybe you could go with me to have dinner. It must be almost dinnertime now. You could sort of check me out on some . . ."

"I'm afraid that would be quite impossible. You couldn't gain admittance to any office you need to visit tonight. Therefore, it is impossible for me to be of any assistance to you."

"Oh, come now, Miss Wendel. There are women aboard spaceships. I'm not a starved wolf."

"Certainly you are not, Mr. Craig. But it is not possible for me . . ."

"You said that already, but you can have dinner with me. Just company."

"I'm afraid I don't understand."

THE Galactic hotel strove to preserve an archaic tone of hospitality. It advertised "a night's lodgings" and it possessed a bellboy. The bellboy actually carried Craig's plasticarton and large file of punch cards and forms to his room. Tired from the long, confusing day, Craig was not impressed. He vaguely wondered if the little drama of the hotel carried so far as a small fee to be paid the bellboy, and he hoped he would have the right size of Terran units in his wallet.

Outside the door to the room, the bellboy stopped and turned to Craig.

"For five I'll tell you where it is," he said in a subdued tone.

"Tell me where what is?"

"You know, the mike."

"Mike?"

"All right, mister, three units, then. I wasn't trying to hold you up."

"You mean a microphone?" asked Craig, mechanically fishing for his wallet.

"Sure, they don't put in screens here. Wanted to, but the boss convinced 'em there aren't any Freedomites ever stay here."

"Where is the microphone?" Craig asked as he found a ten unit note. He was too puzzled to wonder what he was expected to do with the information.

"It's in the bed illuminator. You can short it out with a razor blade. Or I'll do it for another two."

"Never mind," Craig said wearily. He waited while the bellboy inserted a key into the door and opened it for him.

"I can get you a sensatia-tape," whispered the boy when they had entered. He nudged Craig wickedly. "You know what they're like?"

"Yeah," Craig said disgustedly. Traffic in the illicit mental-image tapes was known as far into space as lonely men had penetrated. Intergalactic considered them as great a menace to mental and moral stability as the hectopiates. Craig wearily got the man out of the room, took a PON pill, and eased himself into the bed.

It had been a weird day and he had not liked it. There was no telling how long it would take him to shake his—sea legs, the psychologist had called it. One thing was sure: Terra aggressively went after its strangers.

USHERED into the room by a sullen and silent secretary, Craig found himself facing a semi-circular table at which were seated five uniformed men. The center man, obviously their superior, rose to greet him. He wore the familiar smile Craig had come to know so well and hate so much. The man was somewhat over forty years old, short, stout, entirely unpleasant and puffy.

"Mr. Craig, I believe," he greeted Craig. Since it seemed to be more of a statement than a question, Craig did not answer. He took up a position of more or less military attention at the center of the curved table.

"You *are* Robert Craig," insisted the man.

"Yes, I'm Robert Craig," he answered, somewhat surprised.

The stout man seated himself with a sigh and began to sort through some papers on the table before him. The other four men continued to stare at Craig silently, until he began to feel uncomfortable and hostile. He stiffened his position of attention defiantly.

"You may relax, Mr. Craig," said the first man without looking up. "You aren't nervous, are you?"

"No," Craig said, trying to smile. "This is the first time I've been here and . . ." He let the sentence trail off, hoping for a sympathetic response. But he did not get it.

"Flight Officer, eh?" said the man. Then, looking up, he added, "Somewhat unusual to find a vigorous young man like yourself abandoning the space service for a Terran job, isn't it?"

"I don't know. Is it?"

"Leaving something behind out there, Mr. Craig?"

"No, nothing," Craig snapped.

The other man glared at him a full minute. Craig met the stare and realized the considerable power behind the weak face.

"You don't like this sort of affair, do you, Mr. Craig?"

Craig was forced to look away. "I'm afraid I don't see the necessity," he answered in a controlled voice. "I served the Intergalactic

Service well. My records prove that."

"Granted," said his questioner bluntly. "You are a Terran, are you not, Mr. Craig?"

"I should think that would be obvious," Craig said, matching the blunt tone.

The man rapped the table. "That's enough of your impertinence! You may very well have served the Intergalactic Service, but you are on Terra now. Terra, greatest, first of all civilized systems. Intergalactic may very well have to piddle with incompetent savages and wild colonists, but we of Terra assert our supremacy. Remember those words. You may not always find Terra so submissive to Intergalactic as Intergalactic would desire."

"Where are your loyalties, Mr. Craig?" demanded one of the other men suddenly..

"I am a Terran . . ."

"But your first loyalty is to Intergalactic. Is that right?"

"Is there a distinction?" Craig shot back, thoroughly angry.

"Do you wish to be held in contempt of this committee?" asked the first man, leaning forward half out of his chair.

"Of course not."

"Then you will confine your responses to simple yes and no answers, if you please, *Mr.* Craig."

Craig glared at the men in impotent rage. His head was beginning to ache. He had been many hours without paraoxylnebutal.

"Now, Mr. Craig," the first man began in an overly mild tone, "we shall begin again. Please try to restrain your show of emotion. You are here in petition of an identity card of provisional Code II type. You maintain that you have never been on Terra before. Indeed, you state that you have never had a political affiliation."

"Yes."

"What are your reactions to the latest acts of the Liberty party?" a third man abruptly asked.

"I have none," Craig answered, after an instant of confusion.

"You do not condemn the Liberty party?"

"I . . . I . . ."

"Then you must favor it."

"I don't know anything about any . . ."

"Now, then, Mr. Craig," interrupted the head of the group. "The Import service report shows that you passed your tests aboard your ship. You were enabled to accomplish this through night study."

"Yes."

"Yet you maintain in your application that you had considered the space service a career."

"I changed my mind."

"Oh. You changed your mind. I see . . ."

"WHAT do you do if they turn you down on your food ration?" Craig asked the man by his side on the bench. He had intended it as a vaguely humorous question.

"You don't eat."

"You mean they would actually let you starve?"

"If you could not eat, you would starve," the man said matter-of-factly.

"What's all this for, anyway? I mean the medical part."

"You are rationed fairly in accordance with your particular metabolism."

"You're kidding."

"One does not jest of such matters," said the man, getting up to take a seat on another bench.

"But I'd like to keep it as a souvenir."

"It is not permitted."

"Look, it isn't issue. I bought the hide, had it made. I can pull off the marks of insignia and it's just another jacket . . ."

"That is not the point, Mr. Craig. Your clothing ration is defined by law. There are no exceptions."

"These are your permanent quarters. You will occupy them immediately. Then, if you believe the location is wasteful of your time, you must petition the appropriate committee. This department cannot accept such a petition."

"Your petition to be permitted to purchase a private means of conveyance is hereby denied."

THE big man leaned far back in the battered desk chair. It creaked at worn joints, but touched the wall without sliding from under its enormous load. The man was silent through Craig's long, confused speech. By turns he examined his fingernails, picked at yellowed teeth, and stared above his head at the discolored ceiling.

". . . but you can get all this from ISS, maybe even from Import, if they'll release my file," Craig argued.

"Uh-huh," the big man said between closed lips.

"I just made a mistake, that's all. You don't hear much about Terra out there. It was different in my father's day. It must have been different."

"Yeah."

"I haven't any character references on Terra, but I can post a good-sized bond if they'll release my ISS units."

The space - freight agent glanced up at Craig at the remark.

"Anyway, I can get my units anywhere ISS has a base," Craig continued. "I can handle any-

thing up to 15 Gs acceleration without a new license. I can go heavier if I get a check ride."

The fat man leaned forward in the protesting chair. "You got everything, but you can't go. I can't hire you."

"Why not?"

"Look, kid—Craig, is it?—how long you been in?"

"Four days. I'm still working on my work clearances."

"Four days. You tried Intergalactic to see if they'd take you back?"

"Yes. Their hands are tied by my Terran contract."

"And ours aren't, eh?" The man rose from the desk and walked to a water tap. He popped a pill into his gaping mouth and drank from a tin cup. Then he returned to the inadequate chair. "So you're a spaceman. Flight officer — ex-flight officer. You know how to navigate through four star zones and the asteroid belt thrown in. You got a license for 15 Gs, could get five more. You got enough brains to pass Import's senior router's exam.

"Still, you ain't got enough sense to come in out of the rain!"

Craig sat upright in his chair.

"We get guys like you two, three a day. You're hot. You're big. You're rarin' to go. But you ain't goin' nowhere!"

Craig glared at the big man.

"I don't know how you got here, Craig. It ain't none of my business. Maybe you did quit honorable. Quit to follow your daddy's footsteps. Or maybe you went and burned up a colony somewhere!"

"That would be in my records, wouldn't it?" Craig challenged.

"It still don't make any difference. You're stuck here. Nobody leaves Terra without a permit. Nobody. You couldn't get a permit with a crowbar and a blaster. You got a problem, son. You asked for it. Maybe they told you beforehand, maybe they didn't. You got a problem of adjustment. Terra's moved a long, long way since your daddy left it. We're doing things here. We're going places. Big things and big places.

"You got to fit into that, kid. Fit in quick. Move with it. You don't like the red tape, the committees? I don't like 'em either. But I been here a while. I can cut red tape. Red tape is for guys like you, guys that don't know Terra, don't know where we're going.

"Stick around, kid. You still got sea legs. You're still hopped up on PON. You're going to like it here on Terra. You're going to like it great. You can make a quick dollar on Terra. You can spend a quick dollar here too. Smarten up or you'll finish scrubbing radioactive dust off girders!"





THE girl approached his table, her hard eyes scanning him. Wordlessly she slid into the booth opposite him and made a sign for the bartender.

"Have a drink?" Craig suggested, smiling.

"Yeah."

"Work here?"

"What you mean by that?"

"I mean if you get a percentage on the drinks, I can . . ."

"I don't get no percentage."

The bartender brought them a version of N'cadian taz. The girl slouched in the booth and sullenly tapped the glass. The lights in the bar had dimmed to simulate some kind of planetary night. The walls came alive with projected images of Terran constellations. On their table, a globe lamp began to glow. Tiny bright lights swung orbits around a miniature sun inside the lamp.

As a miniature Pluto swung on its slow arc, an image of it was projected on the girl's dusky face. She seemed to be staring at nothing.

"Why d'you call me over here? You a purist, or don't you like the brand of sensatia-tapes they're peddlin' these days?"

"I don't understand," Craig said.

She smiled crookedly at him. Not a bad face, Craig decided, but hard, hard as the ceramiplate of a ship. She could not be very old. It was the kind of wild look in her eyes that gave her a false appearance of age.

"Maybe you're writing a book —you got me over here for something."

"I just got in," Craig answered.

"What am I supposed to do for this drink?"

"Nothing. Nothing at all. I suppose I thought . . . just skip it. I'm lonesome, that's all."

"Lonely, huh?" said the girl. "Lonely and just in, huh? Just in from space." She turned away from him to signal the bartender. "What you need is drinks."

There were more drinks. Many more drinks. The girl kept them coming, kept talking to him about —what was it? Craig looked at the girl and then at the globe lamp. He watched as the tiny bright orbs of light projected their images on the girl opposite him. He was aware of the gradual dimming of the lights, the suppression of sound in the bar.

He watched the tiny lights of other globes appear around shadows, watched as the lights traced fiery trails across the dusky skin of the girl opposite him, watched as they crossed the warm, rounded flesh . . .

"I tell ya we didn't give him nothing but a coupla tazes."

"The pump will determine that. You might as well tell the truth."

"I am tellin' the truth. He drank, let's see . . . two, three."

"Four, five, six. You let her pump him full."

"Hey, look, this guy's a spaceman, or was."

"I didn't know that. Honest I didn't. He never told us."

"All right, you didn't know. What you put in those tazes—ether?"

"We denature the polyester just like the law says."

"And you get it straight from M'cadii, eh?"

"We put in some syn. So what? That ain't against the law."

"He's probably got grav trouble, Chief."

"Who was the girl?"

"Girl? What girl?"

"You know what girl!"

"Just a girl, like a million of 'em these days."

"Professional?"

"There ain't any any more. You know, sensatia-tapes."

"Know her name?"

"I don't ask no names. How you going to know names? She's a girl. Just like ten million of 'em these days."

"What you think a guy like this is doing here, Chief?"

"Why not?"

"Well, look at his clothes. He's got units, too. Can't figure that out. She must've been after something else."

"How about his clothing and food tickets?"

"Uh . . . that's it. She got his tickets."

"Come on, give me a hand. Lug him into the hold."

THE hard face of the Civil Control chief peered down at him. It was a thick, red face that displayed no trace of feeling except perhaps toughness. It was long yet full, and it contained the proper features; but it added nothing of expression to the harsh, rasping voice.

"First time in, eh? Or else Central's too damned lazy to check the file. Okay, I ain't going to cite you. Waste of time. But listen to me. You got problems, we got problems. You solve yours and don't come back here."

Craig was aware of officers glowering at his back as he fumbled with the door button. The door opened onto a city street. It was entirely foreign to Craig. It was not a clean, straight thor-

oughfare at the bottom of a canyon of towering white buildings and contrived but bright parks. It was an old street, a dirty street; an incredible welter of color and line, of big and little shops, of dirty human shapes in drab gray. A flood of tone and noise hit Craig as he emerged from the station and descended the long, broad steps.

Craig's head was in a whirl despite the strong dose of paraoxylnebutal he had taken in the station clinic. He felt closed in and befogged. He could remember almost nothing of the night in Civil Control. Even the clinic was fading from his memory. He was aware that he stank, that he was dirty, that his clothing clung to his body. He was miserable.

He must call Import. He was due to begin work this morning, his period of personal adjustment complete. Instead, Craig turned and began to walk. He could not carry on a coherent conversation in his present state. He could never find his way unassisted back to his apartment; he was not even sure he remembered the address. But the thought of returning to his quarters, to Import sickened him.

What *was* his address? East 71, North . . . No, that would be old lady Brockman. The association irritated him. He had completely forgotten the unwanted assignment, had forgotten to inquire where the address could be found.

Craig became aware of the heavy flow of vehicular traffic that roared a scant eight feet away. Large surface carriers whistled in the nearest lane of the complex four-lane pattern. Then there were the private surface craft; they were of many sizes and shapes. He guessed that they were turbine-powered, but he could not identify the odor of their exhausts.

There was an odd, unreal quality about the busy thoroughfare. Even myriad sounds from it were sounds he had never heard before and could not break down into their component parts.

Craig became aware of other humans, many of them, on the sidewalk. Again they were of a class that he could not identify. They had none of the brisk, purposeful stride of those he had seen near Import. They lacked also the graceful, colorful dress. Their faces, so far as he could separate them from the blurring film over his eyes, were different.

They seemed somehow *looser* faces, though Craig did not know exactly what he meant by the term. They were not tight, pinched, set, as were the faces he had seen before on Terra. There were bulbous noses, large ears, squint eyes, disheveled hair,

the men's and women's fsces strangely similar. Some were young, some old, but few were hard or fixed. They seemed more plastic, more full of expression than those he had come to know elsewhere in the city. He felt an inexplicable craving to know someone of this strange street.

"You looking for something, mister?" asked a voice near him.

Craig turned to find a middle-aged man eying him from the doorway of an empty building.

"I got it," the man added.

"Got what?" Craig asked.

"Anything a guy just outa the can would want."

"What would a 'guy just outa the can' want that you have?" Craig examined the weathered, sharp face. It was an unpleasant one, but it belonged to this street; it would do to tell him what he wanted to know of the place.

"Follow me." The man quickly inserted a magnikey into the door of the vacant store buildjng.

"There's a station just up the street," Craig warned.

"Sure. So what?"

The empty room was dusty and dark and received little light through the grimy display windows that faced on the street. What kind of store it had been, Craig could not guess. The man led him through a kind of storage room whieh was piled high with moldy paper cartons and back to a rear door. With quick, dextrous movements, the man swung an ancient bar assembly and pushed open the rear door. It led to a litter-strewn ysrd enclosed by rough, eroded shacks and a wooden garage.

They entered the garage through a creaking hinged door. It was a dank, almost completely dark room. Craig stumbled over something on the floor and fell against a packing box of some kind.

"Just stand still," said the man. He was shuffling invisibly about in the darkness. Craig could hear him opening a kind of cabinet or drawer while saying in a steady monotone, "You got the right man, mister. My stuff is pure. You can test it. But you'd rather *drink* it, right?"

For the tenth time, Craig asked himself why he had accepted the furtive invitation. The thought of this man's kind of intoxicant—however 'pure'—nauseated him. Nevertheless, he felt himself compelled by a kind of insatiable curiosity to follow out the part he had accepted. Perhaps through this man, through this somehow fascinating street, he could . . .

"You got ten; I know that. Maybe you got more, huh?" the man interrupted his confused train of thought.

"What makes you think I got ten?" Craig asked. He did not

know himself how many units his wallet contained — certainly not after the previous night.

"Don't get sore. I'm honest. But I know you got ten. Otherwise you wouldn't have got out of the station."

The lack of clearly defined objects by which to orient himself in the darkness of the garage made his head begin to swim once more. He wanted to leave.

"Don't get scared, buddy. They don't ever come in here."

Craig fumbled for support in the darkness. He was afraid he would be sick. Fulfillment for the half-formed plan that was beginning to take shape in his mind would not come with the bootlegger. It would come into being somehow in the tawdry street he had just left, only he did not know how.

"They don't really go after polyester. They don't want to stop the stuff. It makes their job easier. You don't have to worry, buddy. Come on, how much you want? You might have trouble finding more for a while."

Craig said nothing. He fumbled for a grip on a packing box.

"You're from Out, aren't you, buddy? You ain't used to us here yet. Most of my customers are from Out. What jam'd you get into?"

"I got ten units, I think," Craig evaded.

"It ain't none of my business what you done. Nobody around here is going to ask you any questions. Long as you got units, you get poly like the big shots that come over here all the way from Uptown."

"Yeah," said Craig. "Gimme what I get for ten units and let's beat it out of here."

"Myself, I never been Out. Not even Luna. Never wanted to. I stay here and have my little business—you can call it a business. You'll see, buddy, there are millions of guys like me. The controllers don't stop us. We're respectable. A damned sight more respectable than those . . ."

"All right," snapped Craig. "Let's get out of here."

"You got it bad, huh? This poly will fix that up. It's pure. You just come back to old Nave and get poly."

"How . . . how you get out of here?" asked Craig, nauseated.

"Get lost pretty easy in the dark, huh?" The man was beginning to mock him.

Craig lashed out suddenly at the unseen face in the darkness. He caught the thin throat in his left hand. His right left the packing box and cocked to deliver a blow. But he began to fall and had to let go.

"Okay, buddy, okay," the other man said soothingly as Craig was forced to catch himself. "I *like*

ex-spacemen. I know lots of you. I sell you poly. You don't want to get tough with me."

He shoved a block of ten small cubes into Craig's hand and, while Craig fished for his wallet, he produced a tiny, narrow-beamed flash. The transaction was quickly over. The cube was small enough to be forced without much difficulty into Craig's jacket pocket.

The man led him back across the littered yard, through the empty store building, and out the front door. When Craig emerged onto the street once more, a uniformed figure was standing nearby.

"He'll need two," whispered the man from behind him.

Craig reached into his pocket and mechanically fumbled two of the small cubes of waxlike substance from the loose package. He placed them on the outstretched hand of the Civil Control officer. The officer did not look in his direction at any time, but accepted the offer and walked slowly on toward the station.

Craig continued aimlessly down the long street. His head cleared as he walked and once more began to form a kind of vague plan. There was anonymity to a street such as this. There was also a kind of freedom. Everywhere in the universe, there were such streets. Neutralized streets, where a kind of compromise was reached between law and lawlessness. They were permitted because it was always necessary to provide such a place for those who were not permitted elsewhere. Those who would not fit, could not be "rehabilitated," could neither be jailed nor permitted complete freedom.

Controllers of one kind or another patrolled such streets, keeping them in a kind of check—or, more accurately, in a kind of containment. But no amount of control would ever completely stamp out the likes of Nave, the bootlegger.

Perhaps here, on this street, Craig could be "lost." Here he might find security for a time in anonymity, security and time to find a way . . . to what? He did not know.

"Mister! Mister!" cried a thin, high voice from somewhere to his left. "Here, quick!"

It was a young boy of perhaps nine or ten. Craig caught sight of him as he motioned urgently. He wore a shabby, torn version of what appeared to be a space service uniform.

"I'm not buying anything, son," Craig said, pausing briefly.

"Come here, quick!" insisted the boy, his eyes large in a dirty face. "You already bought too much."

The boy was motioning him to

follow. He had stepped between two buildings. Craig approached him with suspicion.

"What did you say?"

"Slip in here quick! You bought from Nave the peddler. You bought poly, didn't ya?"

"How did you . . ." Craig began.

"Tell you later. Slip through here quick or they'll send you to *Hardy!*"

The genuine fear of the youngster conveyed itself to Craig. With effort he forced his body through the space between the old buildings. At first he did not intend to follow the boy, but only to stop him for an explanation. The boy, however, continued down the tight corridor formed by the buildings.

"There's a window soon," he said from ahead of Craig. "Hurry. You lost time with that peddler."

Lost time? Cursing himself for becoming involved again in something he did not understand, Craig nevertheless followed as best he could. It was a tight squeeze and he found himself becoming breathless.

"Dive down!" shouted the boy, looking back with terror in his eyes.

Instinctively Craig did so. The rough walls tore at his suit.

"Stop!" shouted a voice from behind Craig. "Stop or we fire!"

Craig suddenly felt the sill of a window which opened into the building to his left. He quickly pulled himself into it. There was a sickening whine and a part of the window distingrated in a cloud of splinters and plaster.

"Through here," said the boy from the semi-darkness. "They'll blast their way inside in a minute!"

Craig found himself in another empty building. He followed the boy through a doorway and felt his way as he half ran along the dark hall.

"Who are *they?*" he panted.

"Controllers."

"Civil Control?"

"Sure. You must be pretty important. I didn't get it all. But they say the controllers checked up on you after . . . I'll explain later."

The hall ended in a dim room piled high with plasmolite packing boxes in great disarray. The boy chose a box and lifted a lid.

"Follow me. It's a passage."

"Where to?"

"No time now. Down here.

The passage, which seemed to be constructed of plasmolite boxes, seemed somehow lit by daylight, although Craig could not actually see the source of the light.

The tunnel ended in broad afternoon daylight. As he climbed out he saw a large clearing surrounded by ruins.

"We're just inside the old city," the boy said. "We're safe now—unless those controllers are willing to take more chances than I think."

"Wait a minute, son. You said 'old city.' You mean that this is a part of pre-war Los Angeles?"

"Well, sure."

"But that's supposed to be . . ."

"Radioactive? Most of it, anyway. Good thing, too. Otherwise we'd have no place to go."

"Look, kid, you better explain," said Craig. "You were right about somebody being after me, but I don't get the 'we' business. Or how you knew all about this."

"All right, mister, but let's get away from here. Those guys won't come through to here, even if they find a way—I don't think. But they're gettin' smarter and you're pretty hot right now."

The boy led the way to what appeared to be a completely demolished building.

"Used to be the old library," he said.

They circled the heap of plaster, brick, and twisted steel. On the other side Craig saw what appeared to be a window. The boy let himself down through it.

Craig was amazed to find a large, relatively clear area inside, probably part of an old room that had been spared by some freak of the blast.

"You *live* here?" Craig asked the youngster incredulously.

"Part of the time." The boy brought up an old crate and offered it to Craig as a chair. "Listen, mister, I don't know who you are. You're an ex-spaceman and that's enough for me." There was a slightly amusing attempt at adult hardness about him. "You shouldn't have wasted time with Nave. You should have got out of there."

"Why?"

"I don't know. What you done, anyway?"

"I don't remember. Passed out at a bar . . ."

The boy showed disgust. He glanced at the pocket which contained the polyester.

Craig smiled. "I don't use this stuff. At least not enough to deserve what you're thinking." He tossed the remaining cubes on the littered floor of the room.

The boy maintained his look of scorn for a time, but then softened. "I was afraid you got kicked out of the service for that."

"How did you know I was ever in it?"

"Easy. You don't know how to walk on a planet yet. Anybody can tell."

"I didn't get kicked out," Craig said. "I came here to take a civil service job."

"It'd almost be better if you had been."

"I didn't know about Terra.

None of us had any idea."

"I know," said the boy sadly. "My father quit, too. *He* quit to marry my mother. That was before it was . . . so bad."

"Where—" Craig began, then bit off the question.

"Oh, gee, mister, Terra's in an *awful* bad shape! They took . . . my parents. They hunt us down. They . . ."

Craig approached the boy and put a hand on his shoulder. "What's your name, son?"

"Phil."

"Phil what?"

"I don't know exactly. My father had to use so many names toward the . . . end. He once had only one name, but I guess even he forgot what it was."

THEY prepared to spend the night in the old library room, but first Phil left it and made his way into the wilderness of rubble. He returned dragging a packing box of plastic insulating material, out of which they fashioned a crude bed. Despite the thousands of questions that paraded across Craig's mind, he waited each time for the boy to speak.

"I can't take you any further until . . ."

"Until you know more about me?"

"In a way. *They'll* let me know."

Craig would have risked much to identify the "they" Phil referred to, but he did not ask the question. As he watched the boy preparing the dimly lit room for the night, he felt sure Phil could be trusted. He was almost frighteningly mature for his age.

The room was well hidden, for the once great library lay in a powdered ruin about it on all sides but a part of one. Only by accident or knowledge would a stranger recognize it in what was literally a world of rubble. During the moments of silence between the boy's volunteered statements, Craig tried to visualize the awful catastrophe that had befallen the old city. Piles of powdered masonry restricted his view greatly under the gathering night. He could see a scant city block through the window, but he knew the wreckage around them must extend for miles.

"You don't have to worry, mister . . ."

"Craig."

"Mr. Craig. They don't come in here at night."

"Radioactivity?"

"Yes. Not right here, but all around, everywhere."

"What?"

"It's all around us. You go through it to get here, but you can't *stay* anywhere but a few places like this."

"How do you know all of these things, Phil?"

"Oh, we know, all right. We had to find out."

"You must have ion counters," he said in what he hoped was a casual tone.

"We have lots of things."

Craig was thoughtful for a minute. The boy was obviously on his guard now.

"Those empty buildings?" Craig asked tentatively.

"They built them too close," said the boy. It seemed to be a safe subject. "They built them up as close as they thought was safe. Space is very valuable here. But they built them too close."

"Yet the 'we' you speak of live even closer?"

The boy bit his lip and eyed him suspiciously in silence.

"Look, kid," Craig said very deliberately, "I'm not a controller and I'm not interested in a bunch of petty thieves."

The effect was just what he had intended. "We're *not* thieves!" And we're not traitors, either! We're . . ."

The boy was almost in tears. Craig waited a moment, then continued in a soft voice. "Phil, I'm just beginning to realize what a rotten place Terra is. From just what I've seen—it isn't very much—I can imagine such a system producing a great many 'we' groups like yours. I don't know who you are or what you are, but you can't be any worse than what I've already seen of Terran officials. Tell me, kid, what's it all about? And is there any way out of here? I mean—*way* out!"

"You may tell him, Philip," said a quiet voice from the window entrance. "Like us, Philip, Mr. Craig is an enemy of tyranny, though he doesn't realize it yet."

Craig instinctively jumped back to get out of range of the window, meanwhile feeling around for something that could be used as a weapon. But the boy ran to the silhouetted figure in the window.

"Mr. Sam!" he cried eagerly.

Craig relaxed his hold on a strip of heavy metal. When the man had entered, the boy pulled a ragged black cloth across the window once more. He then ignited a small oil burning lamp in a carved-out nook in the wall.

"It's all right, Philip, nobody is following me," the newcomer said.

Craig studied his face. It was an old face covered by a stained gray beard. With a shock Craig recognized the man as a tramp he had seen earlier on the street, napping, sprawled in a doorway. Now for the first time he saw the eyes. Sharp and clear, they caught up the yellow light of the oil lamp and glowed warmly as they turned to Craig.

"I am 'Mr. Sam,' Mr. Craig. You might know me by the full

name, Samuel Cocteau, but I doubt it. Even the names of the infamous do not penetrate space."

"I guess not," Craig agreed. "But you said something about my being an enemy of tyranny."

"Whether you like it at once or not, you are temporarily one of us—one of the 'we' Philip has been speaking of. But all of that in due time. Right now it is necessary for us to leave here."

"They're going to try to find us *tonight?*" asked Phil, startled.

"Yes, a tribute to Mr. Craig," said the old man. "A Geiger team is being readied at the station."

Craig started to protest as the boy began hurriedly to pick up his few possessions in the room.

"I'm sorry, Mr. Craig," the man said. "I must ask you to decide now whether to trust us and our judgment. There is grave danger for you if you are caught by the Civil Control. The report I have received is that you are largely unaware of the 'crimes against the state' you have committed. The Civil Control hoped to capture you before you find them out. But that, of course, is my word only. There is no time to give you proof, even if I had it."

Craig's mind whirled under the sudden onslaught of new facts. He had followed a peddler without knowing why he did it. He had bought polyester he had no use for. He had followed a boy who beckoned to him. Now — how much longer was he to move haphazardly through Terra like a cork on a wind-blown sea? Who were these strange fugitives who said he was one of them and who lived in the heart of a radioactive city?

"Well, Mr. Craig?" asked Cocteau quietly.

Craig glanced at the boy. The child's eyes were wide and pleading in the dim light of the oil lamp.

"Let's go," Craig said.

DARKNESS was swiftly falling on the wilderness of heaping ruin. The three made their way toward what Craig at first thought was an unbroken wall of rubble. The near-horizontal rays of the sun tipped the white mass of broken stone with brilliance, and gave the entire scene an unearthly quality. Below the towering rubble mountains, long black shadows were reaching toward what Craig knew to be the living city.

Cocteau took the lead and set a fast pace for a man of his age. He took a highly devious path through the "mountain," one that began to seem to Craig needlessly difficult and that outlined them against the bright western sky. At one point Craig left the invisible path of the older man to

avoid an exhaustingly steep rise.

"Follow me exactly," warned Cocteau in a sharp voice. "There is only one relatively safe path through here."

"They'll see us against the sky!"

"It cannot be helped."

But there was no indication that they were followed. They pushed onward, scurrying over heaps of weathered plaster and brick. The old man seemed to avoid with great care places where metal girders were visible.

The exertion together with walking directly into the setting sun made Craig begin to feel the old nausea return. He resisted it for a time, but it would not be repressed, particularly as he strove to maintain his balance on difficult climbs. Once he stumbled on a splintered building stone and fell. It was a long minute before he could regain his feet and mutter a feeble, "Sorry."

"We must push on, Mr. Craig," was Cocteau's only comment.

"It's safe here for a *minute*, isn't it?" Craig panted, dizzy and breathless.

"There is no safe place here, Mr. Craig."

They continued their winding way through the growing darkness. For Craig it became a nightmare of stumbling over the endless piles of sharp stones. His mind spun sickeningly and he retched as he half ran along the path Cocteau set for them.

"Please, mister," breathed the voice of Phil behind him. "It isn't so far now."

Doggedness carried Craig onward long after awareness left him.

HE became conscious suddenly, as though by an injection of stimulant. He found himself surrounded by a number of figures, including Cocteau and a white garbed man, evidently a doctor.

"You are quite safe now, Mr. Craig," said Cocteau warmly. "Welcome to the *City of We*."

"Where are we?"

"Deep in the old city, in a place where the radioactivity is negligible," the man answered as the doctor took his pulse. "This is Dr. Grant and these others are members of the *Liberty party*."

"Liberty!"

"You've heard of it?"

"Yeah, you're pretty unpopular, aren't you?"

"Unpopular? Let us say that all of Terran *officialdom* is dedicated to exterminating us."

"The committee on something-or-other asked me about my attitudes toward the Liberty party," said Craig, rising to a sitting position on the cot.

"And at the time you had a lack of attitude, which most likely was unacceptable to them," sup-

plied Cocteau, smiling. "Well, you may be interested to know that you are considered one of us by most of Terra just now."

"What?"

"That is correct," said another of the group. "It seems you were in a bar in—ah—in a somewhat less than fully conscious state . . ."

"But I didn't know anything about the Liberty party."

"No, nor is it alleged that you actually mentioned the party in so many words," continued the white-haired man, smiling. "But it seems that you did make certain statements in the presence of certain persons that did indicate a definite predilection . . ."

"That's crazy," said Craig angrily.

"Of course," Cocteau agreed.

"Furthermore," the other man said, "you are charged with wilful abandonment of duty and 'acts indicative of your desire to shun the best utilization of your talents in behalf of the state of Terra.'"

"In other words," explained Cocteau, "you applied for a job on a private space freighter. Without permission to do so."

Craig was silent. He lay back down on the cot and tried to absorb the data he had just received.

"So I'm accused of belonging to something I don't know anything about?"

"Then I'll tell you briefly about us. You have a right to know the magnitude of the crime with which you are charged." Cocteau took a seat by Craig's cot. The others also found chairs.

"But first a brief bit of history—a history that you have never heard before. Not your fault. It is not allowed to penetrate Terra's atmosphere."

"I don't know much about Terra," Craig interjected. "I'm just finding out how much I don't know."

"God, I wish the rest of the Universe could find out with you!" said one of the group.

"Yes, the history of Terra is almost lost now. That is, the part of it that followed the Great Wars of seventy-five years ago. You know of those wars; you have just walked through one of the physical results of them. No nation or alliance of nations can be said to have won them, but the wars had a most profound effect upon Terra. More than anything else, they made men reach to the stars, if only to escape the deadly conflicts of Terra.

"Ideological issues were involved, naturally, but the underlying cause of the Great Wars was the struggle for power. The world was disunited. Peoples were divided from peoples by an almost inconceivable number of unimportant distinctions. These

were ethnical, national, racial, cultural—name any brand of prejudice and you'll find it existed then.

"Incredibly enough, the destructiveness of the Great Wars accomplished a kind of unity. Gone were the once proud aggressive nations. Gone into oblivion. Gone, too, were the systems of economics and sociology of which men were once so sure. There was a kind of 'plague-on-both-your-houses' attitude among the peoples of the world. There was a large measure of anarchy following the Great Wars. Not a violent, active anarchy of hate and terror, but of apathy and weariness. Apathy at the outcome of false conflicts, and weariness of the self-defeating strife of man against man.

"At first men produced by the full extent of their labors barely enough on which to survive. Only gradually did they regain their ability to produce surpluses once more. Of course, surpluses mean exchanges—trade. And trade requires order and system.

"The first ten years following the Great Wars was a period of gradualism in all things. Peoples united in small groups. There were no political or racial divisions. The units were built upon functional lines. They were natural and free. Above all, they were cooperative.

"It was not communism. Men knew all too well the mental and physical slavery of that brutally rigid system. It was not rugged individualism either. Rugged individuals during this period either starved or were driven out by the starving.

"This n a t u r a l, cooperative unity spread and became more complex. There came into being natural associations of units. Not exclusive but inclusive associations that linked all who would join and could produce surpluses. Productivity increased thereby. Men were intelligent enough to avoid many of the old abuses.

"Ways were found to harness the productivity of each man and woman. Genuine efforts were made to avoid misfits, to make those who produced fit. It was realized, Mr. Craig, that the unhappy man will infect others with his misery, and the trouble he will cause is much more difficult to undo than to prevent in the first place.

"There were, of course, mistakes, false starts. But the newfound system of world-wide unity proved flexible. It was multiple-based. To a very large degree, all men fitted into it logically and naturally. It was the first truly 'grass-roots' economic and social system in the history of man. And it was a great tribute to his ability to work out his destiny.

particularly since it came after a tragedy that was so enormous and devastating.

"The list of its successes is incredible. For in a decade the age-old problem of poverty seemed to have disappeared. There were no significant outbreaks of disorder and lawlessness — indeed, there was comparatively little need for a written law. The principle of mutuality and cooperation was too strongly conditioned into the people.

"Scientifically, the first half of the new century, a scant twenty-five years after the last bomb was dropped, was the greatest in man's history. Man reached the stars. He began to know the molecule, the atom, the electron. He pushed the frontier of his knowledge deep into both microcosm and macrocosm.

"But a fatal flaw had long before developed in the structure, wonderful as it was. It was an age-old flaw. It was one that was disguised by the very nature of the new system. When it was recognized, that flaw had so weakened the system that its spread was all but inevitable. It is a flaw that will always plague man to a certain extent, but one that must keep us eternally vigilant.

"It is this: the greatest human good comes not in how well you learn to control man and keep him from harming himself. What determines it is how completely you learn to free him.

"Conversely, the law provides that no control system, however devised, will succeed in bringing happiness and security to man to any greater extent than it permits the fullest expression of his nature.

"Man is *inherently* good. He will *always* choose a moral path when free to do so. He strives for justice and truth both as an individual and in mass.

"Mr. Craig, democracy is man's greatest *a priori*. Yet based upon a law of restraint, it cannot escape the hopeless contradiction that leads to its own destruction. Man can democratically do the irrational and the insane. He can democratically limit and coerce the absolute highest nature of himself. Bad laws are forever passed to achieve good ends. But each new law produces new criminals while the cause of the new crime remains unsolved.

"Ergo, the world you have just seen. Ergo, the Liberty party. Mr. Craig, our world is ruled by a vast and horrible bureaucracy whose terrible weapon is conformity. You would find few laws even today written in books. Our assemblies pass few statutes. They determine dogma instead. They 'resolve' and 'move.' They fix a new 'position,' define a

'stand.' Our equivalent of judge and attorney is no student of law. He is a kind of moralist. He is sensitive to the 'trend' and appreciative of the 'proper.'

"Terra fits uncomfortably in the Intergalactic System. Like many of the undemocratic systems of the dark past, the Terran state must expand. It is based upon a self-limiting philosopby unless it can spread fast enough. You are charged with being 'un-Terran,' Mr. Craig. A system that forever seeks 'unTerrans' must inevitably exile or kill itself!"

It had been a long speech. Craig had listened in awe, for it was a completely new story to him.

"And you propose to destroy this bureaucracy?" he said.

"In so far as it is a pbilosophical entity, yes."

"And you say I am one of you now?"

"You are considered one of us. Your employer and his secretary are also suspected."

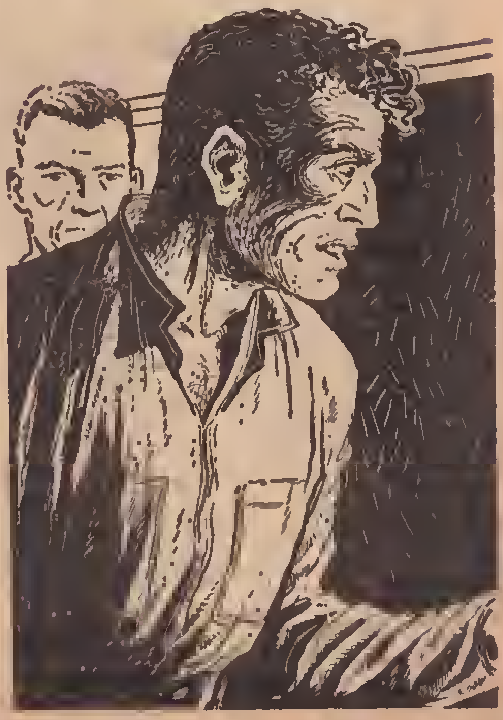
"But I'm entitled to a trial, or at least a hearing."

"Not now, Mr. Craig. It would do you little good, anyway. The 'position' of the Assembly on subversion is that it 'rightly behooves every loyal Terran so to conduct his behavior that a suspicion of membership in the Liberty party is unthinkable.' "

Craig found himself regretting every minute of his stay on Terra. Old Brockman had been right—it was no place for a spaceman. Now it was probably too late. No Terran space freighter would accept him and Intergalactic could not. There was not even a way for him to recover his service records.

"Will you join us, Mr. Craig?" asked one of the men. "We can use your skills, particularly your knowledge of space."

"Look, how do I know you aren't a bunch of traitors? Maybe all this you've told me is true.



I've seen plenty of that bureaucracy and there seems to be damned little freedom of action left on Terra. But how do I know you can do any better when you get in power?"

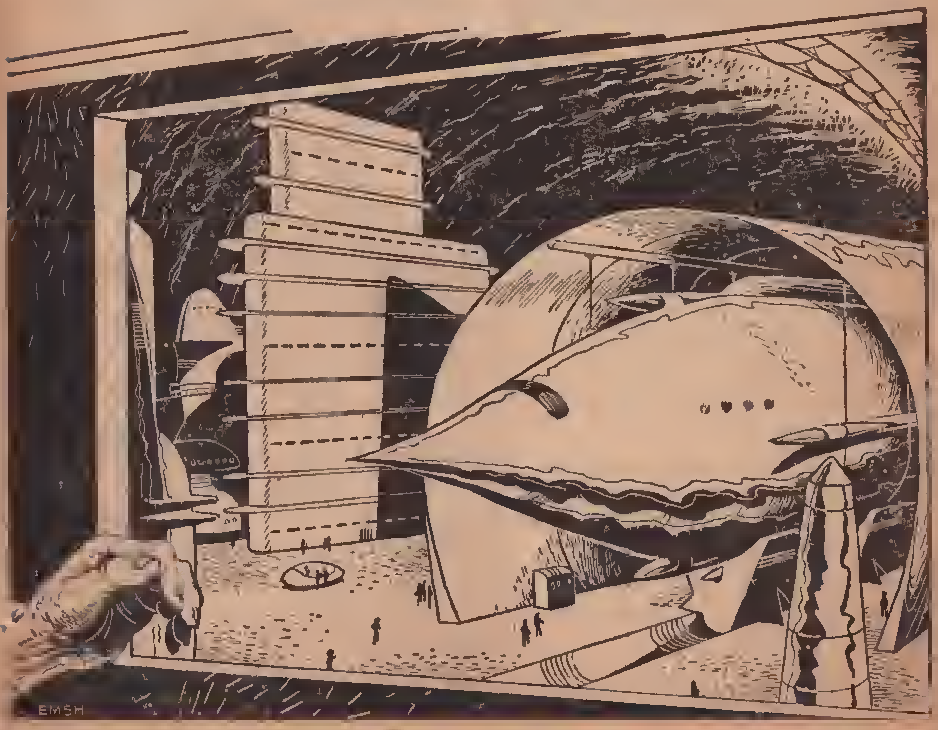
"Liberty will never be 'in power,' Mr. Craig," Cocteau said quietly. "Liberty will attempt to reach the minds of the people with our message of hope, of freedom in true democracy."

Another of the group joined Cocteau. "We are now hunted as criminals. We have only this small stronghold in the old city."

"We shall attempt only to gain entry to the minds of the people," said Cocteau. "Gain entry to tell them how they live, for most of them have had no contact with any other kind of life."

"It would mean killing a few people," Craig pointed out.

"One of the basic principles of Liberty is the inherent goodness of every man," Cocteau repeated. "We have never taken a life, even in self-defense. We shall never take one. Nor will it ever be necessary for a member of the Liberty party to hold public of-



fice, to own a weapon, to coerce a man in any physical way."

"But you will coerce them with ideas. Is that what you have in mind?" Craig protested.

"If a point of view, a promise, a goal is coercion, then the answer to your question is yes. But ideas are not dangerous when a man is free to argue and act against them."

"Look here, Cocteau," Craig said earnestly, "all you say may be true. I believe it is. But what can I do? I'm a spaceman, or at best an apprentice import clerk. I don't know anything about this sort of work."

"Come here a moment," invited a member of the group.

Through the window indicated by the man, Craig saw an incredible sight. The entire scene seemed to be on the inside of a vast underground cavern. There were other buildings and some kind of systematic work being done by many men and women. But the thing that caught Craig's eye seemed to be cradled in a kind of hangar.

"A spaceship!" exclaimed Craig.

"A very modest one, yet not so modest when you consider that it was necessary to carry in every single piece and part by hand."

"Good Lord!"

"*You*, Mr. Craig, might captain that ship. Very few Terrans have ever even flown in one. It will be necessary to establish contact with possible assistance outside of Terra. You can make that possible."

Craig was thoughtful. "I suppose, now that I've seen all this, you can't let me leave here unless I join you."

"No," denied Cocteau. "You may leave here any time you like."

"I'd be sure to get caught, of course . . ."

"Within limits, it might be possible to help you avoid capture." Cocteau reached into his beggar's coat and withdrew a wallet. "Identity card, food ration, clothing, work card, even a Government party card. It's all here, Mr. Craig. You could have a slightly altered physical appearance. Liberty accepts no unwilling members. You are given as nearly a free choice in this matter as is possible to give you."

"Suppose I talked?" asked Craig, nodding bluntly toward the port.

Cocteau smiled. "It was necessary to prepare for that. You were given a drug. It has not affected your thinking capacity in any way. But once it wears off, you will be unable to remember what took place while under its influence.

"When agents of the Liberty party are sent out of here, they

go having had all experience with Liberty take place while under the drug. None of us could remember for more than a few hours the exact location of this headquarters. When it is necessary to leave for very long, we carry a small amount of the drug with us. Many of our agents have been caught and a few have resigned. But none has divulged enough information to harm us seriously."

Craig was postponing his decision to the last. "They must know you're somewhere in here. If the radioactivity keeps them out, why shouldn't they put a cordon around the entire old city?"

"Periodically, they try. But there are many, many other ways of leaving here than by the surface. Underground water conduits, ancient power and sewer lines, a number of tunnels we have dug . . ."

Craig was solemnly handed the wallet.

"If you will submit to sufficient plastic surgery to make you resemble this man, you may safely leave here no later than tomorrow night."

A long silence ensued. It was interrupted by a noise from outside the door of the room. It was the voice of Phil.

"Has he decided to stay? Did you see him? He looks like my daddy did . . . Will he stay?"

"You mustn't interrupt, son. They're in conference now. We'll let you know."

"Tell him yes!" said Craig in a loud voice. "Tell him hell, yes, I'm staying!"

The men gathered around him to congratulate him on the decision.

Phil was allowed in the clinic to join them.

"Oh, Cocteau, one more thing," Craig said.

"Yes?"

Craig was fumbling for his own wallet. He extracted a folded card.

"Where would East 71, North 101, Number 4 be?"

"It *would* have been somewhere here in Old City."

"God! How did the old guy expect me to deliver this message? Old man named Brockman. He sent me a message just before he died in Gravitation. I was to visit his wife."

"Brockman?" asked Cocteau. "You mean Ethel Brockman?"

"Yeah. How'd you know?"

"Ethel Brockman was one of the organizers of the Liberty party. She served as its chairman until her death only a few years ago. Her husband must have felt your 'sea legs' would lead you to us eventually. And, of course, they did."

—FRANK QUATTROCCHI

TIGER by the tail

By ALAN E. NOURSE

Where do objects go when they vanish and can never be found again? Well, here's one answer you can't disprove!

Illustrated by JEAN FAWCETTE

THE department store was so crowded with the post-season rush, it was surprising that they spotted her at all. The salesgirl at the counter was busy at the far end, and the woman was equally busy at her own end, slipping goods from the counter into the large black purse. Kearney watched for several minutes in growing alarm before he motioned over the other section manager.

"Watch that woman for a min-

ute," he said in an offhand whisper. "She's sorting that hardware like she owns the store!"

"A klepto? What are you waiting for?" asked the other. "Let's have a talk with her—"

Kearney scratched his head. "Watch her for a moment. There's something d a m n e d fishy—"

They watched. She was standing at the kitchenware counter, her hands running over the merchandise on the shelf. She took three cookie cutters, and popped them into the pocketbook. Two large cake tins and a potato masher followed. Then a small cake-safe, and two small pots. Then a large aluminum skillet.

The second man stared in disbelief. "She's taken enough junk there to stock a store. And she's putting it all into that pocketbook. Kearney, *she couldn't get all that junk into a pocketbook!*"

"I know," said Kearney. "Let's go."

They moved in on her from opposite sides, and Kearney took her gently by the arm. "We'd like to speak to you, madam. Please come with us quietly."

She looked up blankly, then shrugged and followed them into a small office. "I don't know what this means—"

"We've been watching you for fifteen minutes." Kearney took the pocketbook from her arm, unsnapped it, glanced inside, a shook it in alarm.

He looked up, eyes wide a puzzled. "Jerry, *look at thi*

Jerry looked. When he tried speak, there just weren't a words.

The pocketbook was empty.

FRANK COLLINS parked h car in front of the Institu of Physics, and was passed b fingerprint into the lab win Evanson met him in the corrido

"Glad you got here," Evanso said grimly.

"Listen, John, what *is* th about a pocketbook? I hope i not your idea of a joke."

"Not this gadget," Evans promised. "Wait till you see it

He led the way into one of t large lab sections. Collins eye the shiny control panels uneasil the giant generators and booster the duocalc relay board with it gleaming tubes and confused wir ing. "I can't see what you wan with me here. I'm a mechanica engineer."

Evanson walked into a sma office off the lab. "You're also troubleshooter from way bac Meet the research team, Frank

The research team wo smocks, glasses, and a slouc Collins nodded, and looked the pocketbook lying on the tab

"Looks just like any oth pocketbook to me," he said. H

picked it up. It felt like a pocketbook. "What's in it?"

"You tell us," Evanson said.

Collins opened it up. It was curiously dark inside, with a dull metallic ring around the inside, near the top. He turned it upside down, and shook it. Nothing came out.

"Don't reach around inside," Evanson cautioned. "It's not safe. One fellow tried, and lost a wristwatch."

Collins looked up, his bland full face curious. "Where did you get this?"

"A couple of section managers spotted a shoplifter down in the Taylor-Hyden store a couple of days ago. She was helping herself to kitchen hardware, and was stuffing anything and everything into the pocketbook. They nabbed her, but when they tried to get the hardware back out of the pocketbook, they couldn't find any. One of them lost a wristwatch groping around in it."

"Yes, but how did *you* wind up with the purse?"

Evanson shrugged. "Ever since the end of the war in '71, when they organized Psych, they've turned shoplifters over to them. This woman was taken to Psych, but when they jarred her into remembering who she was, she couldn't recall having the purse. After Psych had looked at the pocketbook, they naturally sent it



over to us. Here, I'll show you why."

Evanson picked up a meter stick, and began to push it into the pocketbook. It went in about ten centimeters, to the bottom of the purse—

And kept on going.

It didn't poke out the bottom. It didn't even bulge the purse.

Collins goggled at it. "Holy smoke, how'd you do that?"

"Maybe it's going somewhere else. Fourth dimension. I don't know."

"Nuts!"

"Where else, then?" Evanson laid the meter stick down. "Another thing about that pocketbook," he added. "No matter what you do, you can't turn it inside out."

Collins looked at the dark inside of the pocketbook. Gingerly he stuck his finger in, rubbed the metallic ring, scratched it with his nail. A shiny line appeared. "That's aluminum in there," he said. "An aluminum circle."

Evanson took it and looked. "All the stuff she was stealing was aluminum," he said. "That's one reason we called you. You know your mechanics, and you know your metals. We've been trying for three days to figure out what happens here. We can't. Maybe you can."

"What have you been doing?"

"Pushing stuff in. Checking it with all the instruments, X-ray, everything. Didn't tell us a thing. We'd like to know where that stuff goes that we push in."

Collins dropped an aluminum button into the purse. It went through the aluminum circle and vanished. "Say," he asked suddenly, scowling, "what do you mean, you can't turn this thing inside out?"

"It's a second-order geometric form." Evanson lit a cigarette carefully. "You can turn a first-order form, like a sphere or rubber ball, inside out through a small hole in the surface. But you can't turn an inner-tube inside out, no matter what you do."

"Why not?"

"Because it's got a hole in it. And you can't pull a hole through a hole. Not even an infinitesimal hole."

"Well?" said Collins, frowning.

"It's the same thing with that purse. We think it's wrapped around a chunk of another universe. A four-dimensional universe. And you can't pull a chunk of another universe through this one, without causing a lot of trouble."

"But you *can* turn an inner-tube inside out," Collins protested. "It may not look like an inner-tube any more, but it will all come through the hole."

Evanson eyed the pocketbook on the table. "Maybe so. A sec-

ond-order geometric under condition of stress. But there's one hitch to that. *It won't be an inner-tube any more.*"

EVANSON pushed the fourth item made of aluminum into the purse. He shook his head tiredly. "I don't know. *Something* is taking that aluminum—" He pushed in a wooden ruler; it popped right out again. "And it wants *only* aluminum. Nothing else. That detective had an aluminum military watch, which disappeared from his wrist, but he had two gold rings on that hand, and neither one was touched."

"Let's play some thinking games," Collins said.

Evanson looked up sharply. "What do you mean?"

Collins grinned. "*Whatever* is on the other side of that pocketbook seems to want aluminum. Why? There's an aluminum ring around the mouth of the purse—all around it. Like a portal. But it isn't very big, and it doesn't use much aluminum. They seem to want lots more."

"They?"

"Whatever takes the metal, but pushes back the wood."

"Why?"

"We could venture a guess. Maybe they're building *another* opening. A large one."

Evanson stared at him. "Don't be silly," he said. "Why—"

"I was just thinking out loud," said Collins mildly. He picked up a steel meter stick. Taking a firm grip on one end, he pushed the other end into the purse.

Evanson watched, puzzled. "They don't want it. They're trying to push it back."

Collins continued to insert the stick, with pressure, and suddenly the end appeared, coming back out. Like a flash Collins grabbed it, and began tugging both ends at once.

"Watch it, watch it!" Evanson snapped. "You're making their universe conform to our geometry!" The purse seemed to sag inward.

One end of the rod suddenly slipped out of Collins hand. He fell back, grasping the stick. It was straight.

"Evanson!" he snapped excitedly. "Can you get a winch up here?"

Evanson blinked dully, and nodded.

"Good," said Collins. "I think I know how we can hook onto their universe."

THE big three-inch steel bar rolled easily into the lab on a dolly. The end of the bar, for six inches, was covered with shiny aluminum tubing. and bent into a sharp hook.

"Is the winch ready?" Collins asked excitedly.

Evanson told him it was.

"Then slide the purse onto the end of the bar."

The end of the bar disappeared into the pocketbook.

"What are you trying to do?" Evanson asked uneasily.

"They seem to want aluminum, so we're going to give them some. If they're building another opening through with it, I want to hook onto the opening and pull it out into this lab. They'll be putting the aluminum on this bar with the rest. If we can hook onto that aluminum, they'll either have to cut it free and let us retrieve it, or open it into this lab."

Evanson scowled. "But what if they don't do either?"

"They *have* to. If we pull a non-free section of their universe through the purse, it will put a terrific strain on their whole geometric pattern. Their whole universe will be twisted. Just like an inner-tube."

The winch squeaked as Collins worked the bar to and fro inside the purse.

"Up a little," he said to the operator.

Evanson shook his head sourly. "I don't see—" he began. The bar twanged under sudden pressure.

"Hold it! You've got it hooked!" Collins shouted.

The winch squealed noisily, the motor whining under the strain. The steel bar slid slowly out of the purse, millimeter by millimeter, pulled as taut as a piano wire. Every ten minutes one of the technicians made a chalk mark on the bar by the mouth of the purse.

Frank Collins filled a pipe and puffed nervously. "The way I see it," he said, "these beings pried a small fourth-dimension hole into our universe, and somehow got that woman under a suggestive trance. They made her collect aluminum so they could build a bigger opening."

"But why?" Evanson poured coffee out of a thermos. It was late, and the whole building was silent and deserted except for this one lab section. The only noise in the room was the whine of the winch, straining at the other universe.

"Who knows? To get more and more aluminum? Whatever the reason, they want to get through to our universe. Maybe theirs is in some danger or other. Hell, the reason may be so alien that we couldn't possibly understand it."

"But what's the idea of hooking onto them?" Evanson's eyes were worried.

"Control. We pull a non-free chunk of their universe into ours, and they can't use the opening. It'll be plugged up. The more we pull through, the more strain on the structure of their universe.



They'll have to listen to *our* terms then. They'll have to give us their information so that we can build openings, and examine them properly. If they don't, we'll wreck their universe."

"But you don't even know what they're *doing* in there!"

Collins shrugged, made another chalk mark on the bar. The bar was humming.

"I don't think we should take the risk," Evanson complained. "I didn't have permission to try this. I just let you go ahead on my own authority, on data—" he shuddered suddenly—"that's so damned vague, it makes no sense at all."

Collins knocked out his pipe sharply. "It's all the data we have."

"I say it's wrong. I think we should release the bar right now, and wait till Chalmers gets here in the morning."

Collins eyed the winch with growing uneasiness, lighting his pipe with a match held in unsteady fingers. "We *can't* release the bar now. The tapered sheaves are under too much tension. We couldn't even burn through that rod with an oxy-torch in less than twenty minutes — and it would jolt the whole building apart when it broke."

"But the danger—" Evanson stood up, his forehead beaded with perspiration. He nodded to-

ward the creaking winch. "You might be gambling our whole universe."

"Oh, calm down!" Collins said angrily. "We don't have any choice now, or even time to talk it over. We're *doing* it and that's all there is to it. When you grab a tiger by the tail, you've got to hang on."

Evanson crossed the room excitedly. "It seems to me," he said tensely, "that the tiger might have the advantage. If it went the wrong way, think what *they* could do to *our* universe!"

Collins blew smoke from the corner of his mouth. "At any rate, I'm glad we thought of it first—" He trailed off, his face slowly turning white.

Evanson followed his stare, and his breath came in a sharp gasp. The thermos clattered noisily to the floor. He pointed at the second chalk mark, sliding *into* the pocketbook.

"You mean you hope we did," he said.

—ALAN E. NOURSE

OVER 1000 GALAXY READERS READ AND ENJOY FANTASY ADVERTISER

Through its pages you can buy, sell, and trade books and back issues of magazines—and learn what you want to know about the many new science fiction books. Send $1 for 8 bi-monthly issues or 15c for a specimen copy to: 1745 W. Kenneth Road, Glendale 1, Calif.

Current New Books:

Science & Fantasy Fiction

■ We carry a full line of all current American science fiction, as well as a large stock of scarce out-of-print books in this field. Back issues of science fiction magazines available.

Open Monday Thru Saturday: 9:30 A.M. to 6:30 P.M. Open Wednesday Evenings until 8:00 P.M.

STEPHEN'S BOOK SERVICE

45 FOURTH AVENUE (Cor. 9th St.)
New York 3, New York
(Phone GRamercy 3-0294)

I'VE GOT THEM ALL! EVERY ONE!

All the Science Fiction, Fantasy and Supernatural Books in Print in America or England!" I can supply anything you see mentioned, listed or offered anywhere!! Visit my store and inspect the Largest Variety of Brand New Books of this kind in the world or send 10c for my Big Printed Checklist of 1051 Titles including 224 Paperbound Books at 25c each up

FRANK A. SCHMID
9 Columbus Circle, New York 19, N. Y.

Moving?

If you want your GALAXY subscription sent to a new address, notify us at least FOUR WEEKS IN ADVANCE. Send the information to . . .

Galaxy Publishing Corp.
421 Hudson Street
New York 14, N. Y.

Dear Galaxy:

If I don't get down to the newsstand on the same day that the new issue arrives, I'm out of luck—the magazine sells so quickly! What can I do to make sure that I receive my anxiously awaited copy?

Signed,

A MULTITUDE OF READERS.

Dear Readers:

There's only one answer . . . subscribe today! The printer literally can't keep up with the swift growth of circulation, which means that would-be buyers may find that situation, but *not* subscribers; *their* copies are set aside for them in advance!

Use the coupon below, or send in your own order, if you prefer not to mutilate the magazine — the coupon is for your convenience, not ours.

Signed,

GALAXY SCIENCE FICTION.

Name

Address

City..... State.....

Start with..... issue.

Dept. A



By
ANN
GRIFFITH

Zeritsky's Law

Why bother building a time machine when there's something much easier to find right in your own kitchen?

SOMEBODY someday will make a study of the influence of animals on history. Although not as famous as Mrs. O'Leary's cow, Mrs. Graham's cat should certainly be included in any such study. It has now been definitely established that the experiences of this cat led to the idea of quick-frozen people, which, in turn, led to the passage of Zeritsky's Law.

We must go back to the files of the Los Angeles newspapers for 1950 to find the story. In brief, a Mrs. Fred C. Graham

Illustrated by THORNE

missed her pet cat on the same day that she put a good deal of food down in her home deep-freeze unit. She suspected no connection between the two events. The cat was not to be found until six days later, when its owner went to fetch something from the deep-freeze. Much as she loved her pet, we may imagine that she was more horror- than grief-stricken at her discovery. She lifted the little ice-encased body out of the deep-freeze and set it on the floor. Then she managed to run as far as the next door neighbor's house before fainting.

Mrs. Graham became hysterical after she was revived, and it was several hours before she could be quieted enough to persuade anybody that she hadn't made up the whole thing. She prevailed upon her neighbor to go back to the house with her. In front of the deep-freeze they found a small pool of water, and a wet cat, busily licking itself. The neighbor subsequently told reporters that the cat was concentrating its licking on one of its hind legs, where some ice still remained, so that she, for one, believed the story.

A follow-up dispatch, published a week later, reported that the cat was unharmed by the adventure. Further, Mrs. Graham was quoted as saying that the cat had had a large meal just before its disappearance; that as soon after its rescue as it had dried itself off, it took a long nap, precisely as it always did after a meal; and that it was not hungry again until evening. It was clear from the accounts that the life processes had been stopped dead in their tracks, and had, after defrosting, resumed at exactly the point where they left off.

Perhaps it is unfair to put all the responsibility on one luckless cat. Had such a thing happened anywhere else in the country, it would have been talked about, believed by a few, disbelieved by most, and forgotten. But as the historic kick of Mrs. O'Leary's cow achieved significance because of the time and place that it was delivered, so the falling of Mrs. Graham's cat into the deep-freeze became significant because it occurred in Los Angeles. There, and probably only there, the event was anything but forgotten; the principles it revealed became the basis of a hugely successful business.

How shall we regard the Zeritsky Brothers? As archvillains or pioneers? In support of the latter view, it must be admitted that the spirit of inquiry and the willingness to risk the unknown were indisputably theirs. However, their pioneering—if we agree

to call it that—was, equally indisputably, bound up with the quest for a fast buck.

Some of their first clients paid as high as $15,000 for the initial freezing, and the exorbitant rate of $1,000 per year as a storage charge. The Zeritsky Brothers owned and managed one of the largest quick-freezing plants in the world, and it was their claim that converting the freezing equipment and storage facilities to accommodate humans was extremely expensive, hence the high rates.

When the early clients who paid these rates were defrosted years later, and found other clients receiving the same services for as little as $3,000, they threatened a row and the Zeritskys made substantial refunds. By that time they could easily afford it, and since any publicity about their enterprise was unwelcome to them, all refunds were made without a whimper. $3,000 became the standard rate, with $100 per year the storage charge, and no charge for defrosting.

The Zeritskys were businessmen, first and last. Anyone who had the fee could put himself away for whatever period of time he wished, and no questions asked. The ironclad rule that full payment must be made in advance was broken only once, as far as the records show.

A certain young man had a very wealthy uncle, residing in Milwaukee, whose heir he was, but the uncle was not getting along in years fast enough. The young man, then 18 years old, did not wish to waste the "best years of his life" as a poor boy. He wanted the money while he was young, but his uncle was as healthy as he was wealthy. The Zeritskys were the obvious answer to his problem.

The agreement between them has been preserved. They undertook to service the youth without advance payment. They further undertook to watch the Milwaukee papers until the demise of the uncle should be reported, whereupon they would defrost the boy. In exchange for this, the youth, thinking of course that money would be no object when he came out, agreed to pay double.

The uncle lived 17 years longer, during which time he seems to have forgotten his nephew and to have become deeply interested in a mystic society, to which he left his entire fortune. The Zeritskys duly defrosted the boy, and whether they or he were the more disappointed is impossible to imagine. They never forgot the lesson, and never made another exception to their rule.

He, poor fellow, spent the rest of his life, including the best

years, paying off his debt which, at $3,000 plus 17 years at $100 per year, and the whole doubled, amounted to $9,400. The books record his slow but regular payments over the next 43 years, and indicate that he had only $250 left to pay when he died. We may, I think, assume that various underworld characters who were grateful ex-clients of the Zeritskys were instrumental in persuading the boy to keep up his payments.

Criminals were the first to apply for quick-freezing, and formed the mainstay of the Zeritskys' business through the years. What more easy than to rob, hide the loot (except for that all-important advance payment), present yourself to the Zeritskys and remain in their admirable chambers for five or ten years, emerge to find the hue and cry long since died down and the crime forgotten, recover your haul and live out your life in luxury?

Due to the shady character of most of their patrons, the Zeritskys kept all records by a system of numbers. Names never appeared on the books, and anonimity was guaranteed.

Law enforcement agents, looking for fugitives from justice, found no way to break down this system, nor any law which they could interpret as making it illegal to quick-freeze. Perhaps the truth is that they did not search too diligently for a law that could be made to apply. As long as the Zeritskys kept things quiet and did not advertise or attract public attention, they could safely continue their bizarre business.

City officials of Los Angeles, and particularly members of the police force, enjoyed a period of unparalleled prosperity. Lawyers and other experts who thought they were on the track of legal means by which to liquidate the Zeritsky empire found themselves suddenly able to buy a ranch or a yacht or both, and retire forever from the arduous task of earning a living.

Even with a goodly part of the population of Los Angeles as permanent pensioners, the Zeritsky fortune grew to incredible proportions. By the time the Zeritsky Brothers died and left the business to their sons, it was a gold mine, and an inexhaustible one at that.

During these later years, the enterprise began to attract a somewhat better class of people. Murderers and other criminals continued to furnish the bulk of the business, but as word of this amazing service seeped through the country, others began to see in it an easy way of solving their problems. They were encouraged, too, by the fact that the process was painless, and the firm completely reliable. There were no

risks, no accidents, no fatalities. One could, in short, have confidence in the Zeritskys.

Soon after Monahan's great exposure rocked the nation, however, many of these better-type clients leaped into print to tell their experiences.

One of the most poignant stories came from the daughter of a Zeritsky client. Her father was still, at the age of one hundred and two, passionately interested in politics, but the chances of his lasting until the next election were not good. The daughter herself suggested the deep freeze, and he welcomed the idea. He decided on a twenty year stay because, in his own words, "If the Republicans can't get into the White House in twenty years, I give up." Upon his return, he found that his condition had not been fulfilled. His daughter described him as utterly baffled by the new world. He lived in it just a week before he left it, this time for good. She states his last words were, "How do you people stand it?"

Some professional people patronized the Zeritskys, chiefly movie stars. After the expose, fan magazines were filled with accounts of how the stars had kept youthful. The more zealous ones had prolonged their screen lives for years by the simple expedient of storing themselves away between pictures. We may imagine the feelings of their public upon discovering that the seemingly eternal youth of their favorites was due to the Zeritskys and not, as they had been led to believe, to expensive creams, lotions, diet and exercise. There was a distinctly unfavorable reaction, and the letter columns of the fan magazines bristled with angry charges of cheating.

But next to criminals, the majority of people who applied for quick-freezing seems to have been husbands or wives caught in insupportable marital situations. Their experiences were subsequently written up in the confession magazines. It was usually the husband who fled to Los Angeles and incarcerated himself for an appropriate number of years, at the end of which time his unamiable spouse would have died or made other arrangements. If we can believe the magazines, this scheme worked out very well in most cases.

There was, inevitably, one spiteful wife who divined her husband's intentions. By shrewd reasoning, she figured approximately the number of years he had chosen to be absent, and put herself away for a like period. In a TV dramatization rather pessimistically entitled *You Can't Get Away*, the husband described his sensations upon being de-

frosted after 15 years, only to find his wife waiting for him, right there in the reception room of the Zeritsky plant.

"She was as perfectly preserved as I was," he said. "Every irritating habit that had made my life unbearable with her was absolutely intact."

The sins of the fathers may be visited on the sons, but how often we see repeated the old familiar pattern of the sons destroying the lifework of the fathers! The Zeritsky Brothers were fanatically meticulous. They supervised every detail of their operations, and kept their records with an elaborate system of checks and doublechecks. They were shrewd enough to realize that complete dependability was essential to their business. A satisfied Zeritsky client was a silent client. One dissatisfied client would be enough to blow the business apart.

The sons, in their greed, overexpanded to the point where they could not, even among the four of them, personally supervise each and every detail. A fatal mistake was bound to occur sooner or later. When it did, the victim broadcast his grievance to the world.

The story appeared in a national magazine, every copy of which was sold an hour after it appeared on the stands. Under the title *They Put the Freeze on Me!* John A. Monahan told his tragic tale. At the age of 37, he had fallen desperately in love with a girl of 16. She was immature and frivolous and wanted to "play around" a little more before she settled down.

"She told me," he wrote, "to come back in five years, and that started me thinking. In five years I'd be 42, and what would a girl of 21 want with a man twice as old as her?"

John Monahan moved in circles where the work of the Zeritskys was well known. Not only did he see an opportunity of being still only 37 when his darling reached 21, but he foresaw a painless way of passing the years which he must endure without her. Accordingly, he presented himself for the deep-freeze, paid his $3,000 and the $500 storage charge in advance, and left, he claimed, "written instructions to let me out in five years, so there'd be no mistakes."

Nobody knows how the slip happened, but somehow John A. Monahan, or rather the number assigned to him, was entered on the books for 25 years instead of five years. Upon being defrosted, and discovering that a quarter of a century had elapsed, his rage was awesome. Along with everything else, his love for his sweetheart had been perfectly

preserved, but she had given up waiting for him and was a happy mother of two boys and six girls.

Monahan's accusation that the Zeritskys had "ruined his life" may be taken with a grain of salt. He was still a young man, and the rumor that he received a hundred thousand for the magazine rights to his story was true.

As most readers are aware, what has come to be known as "Zeritsky's Law" was passed by Congress and signed by the President three days after Monahan's story broke.

Seventy-five years after Mrs. Graham's cat fell into the freezer, it became the law of the land that the mandatory penalty for anyone applying quick-freezing methods to any living thing, human or animal, was death. Also, all quick-frozen people were to be defrosted immediately.

Los Angeles papers reported that beginning on the day Monahan's story appeared, men by the thousands poured into the city. They continued to come, choking every available means of transport, for the next two days—until, that is, Zeritsky's Law went through.

When we consider the date, and remember that due to the gravity of the international situation, a bill had just been passed drafting all men from 16 to 60, we realize why Congress had to act.

The Zeritskys, of course, were among the first to be taken. Because of their experience, they were put in charge of a military warehouse for dehydrated foods, and warned not to get any ideas for a new business.

—ANN GRIFFITH

In the DECEMBER GALAXY . . .

WORLD WITHOUT CHILDREN by Domon Knight . . . another great novella in the series that gave you THE FIREMAN by Ray Bradbury and BEYOND BEDLAM by Wyman Guin!

And in the JANUARY GALAXY . . .

Begin THE DEMOLISHED MAN, an astonishing, outstanding 3-part serial by Alfred Bester, the story of a criminal who can't fail . . . in a civilization where crime can't succeed!



Self

In the credo of this inspiringly selfless cyberneticist, nothing was too good for his colleagues in science. Much too good for them!

Illustrated by MARTIN SCHNEIDER

Portrait

By BERNARD WOLFE

October 5, 1959

WELL, here I am at Princeton. IFACS is quite a place, *quite* a place, but the atmosphere's darned informal. My colleagues seem to be mostly youngish fellows dressed in sloppy dungarees, sweatshirts (the kind Einstein made so famous) and moccasins, and when they're not puttering in the labs they're likely to be lolling on the grass, lounging in front of the fire in commons, or slouching around in conference rooms chalking up equations on a blackboard. No way of telling, of course, but a lot of these collegiate-looking chaps must be in the MS end, whatever that is. You'd think fellows in something secret

like that would dress and behave with a little more dignity.

Guess I was a little previous in packing my soup-and-fish. Soon as I was shown to my room in the bachelor dorms, I dug it out and hung it way back in the closet, out of sight. When in Rome, etc. Later that day I discovered they carry dungarees in the Co-op; luckily, they had the pre-faded kind.

October 6, 1959

MET the boss this morning—hardly out of his thirties, crew-cut, wearing a flannel hunting shirt and dirty saddleshoes. I was glad I'd thought to change into my dungarees before the interview.

"Parks," he said, "you can count yourself a very fortunate young man. You've come to the most important address in America, not excluding the Pentagon. In the world, probably. To get you oriented, suppose I sketch in some of the background of the place."

That would be most helpful, I said. I wondered, though, if he was as naive as he sounded. Did he think I'd been working in cybernetics labs for going on six years without hearing enough rumors about IFACS to make me dizzy? Especially about the MS end of IFACS?

"Maybe you know," he went on, "that in the days of Oppenheimer and Einstein, this place was called the Institute for Advanced Studies. It was run pretty loosely then—in addition to the mathematicians and physicists, they had all sorts of queer ducks hanging around—poets, egyptologists, numismatists, medievalists, herbalists, God alone knows what all. By 1955, however, so many cybernetics labs had sprung up around the country that we needed some central coordinating agency, so Washington arranged for us to take over here. Naturally, as soon as we arrived, we eased out the poets and egyptologists, brought in our own people, and changed the name to the Institute for Advanced *Cybernetics* Studies. We've got some pretty keen projects going now, *pret*-ty keen."

I said I'd bet, and did he have any idea which project I would fit into?

"Sure thing," he said. "You're going to take charge of a very important lab. The Pro lab." I guess he saw my puzzled look. "Pro—that's short for prosthetics, artificial limbs. You know, it's really a scandal. With our present level of technology, we should have artificial limbs which in many ways are even better than the originals, but actually we're still making do with modifica-

tions of the same primitive, clumsy pegs and hooks they were using a thousand years ago. I'm counting on you to get things hopping in that department. It's a real challenge."

I said it sure was a challenge, and of course I'd do my level best to meet it. Still, I couldn't help feeling a bit disappointed. Around cybernetics circles, I hinted, you heard a lot of talk about the hush-hush MS work that was going on at IFACS and it sounded so exciting that, well, a fellow sort of hoped he might get into *that* end of things.

"Look here, Parks," the boss said. He seemed a little peeved. "Cybernetics is teamwork, and the first rule of any team is that not everybody can be quarterback. Each man has a specific job on our team, one thing he's best suited for, and what *you're* best suited for, obviously, is the Pro lab. We've followed your work closely these last few years, and we were quite impressed by the way you handled those photoelectric-cell insects. You pulled off a brilliant engineering stunt, you know, when you induced nervous breakdown in your robot moths and bedbugs, and proved that the oscillations they developed corresponded to those which the human animal develops in intention tremor and Parkinson's disease. A keen bit of cybernetic thinking, that. *Very* keen."

It was just luck, I told him modestly.

"Nonsense," the boss insisted. "You're first and foremost a talented neuro man, and that's exactly what we need in the Pro department. There, you see, the problem is primarily one of duplicating a nervous mechanism in the metal, of bridging the gap between the neuronic and electronic. So buckle down, and if you hear any more gossip about MS, forget it fast — it's not a proper subject of conversation for you. The loyalty oath you signed is very specific about the trouble you can get into with loose talk. Remember that."

I said I certainly would, and thanks a whole lot for the advice.

Damn! Everybody knows MS is the thing to get into. It gives you real standing in the field if it gets around that you're an MS man. I had my heart set on getting into MS.

October 6, 1959

IT never rains, etc.: now it turns out that Len Ellsom's here, and *he's* in MS! Found out about it in a funny way. Two mornings a week, it seems, the staff members get into their skiing and hunting clothes and tramp into the woods to cut logs for their fireplaces. Well, this morning I

went with them, and as we were walking along the trail Goldweiser, my assistant, told me the idea behind these expeditions.

"You can't get away from it," he said. "$E=MC^2$ is in a tree trunk as well as in a uranium atom or a solar system. When you're hacking away at a particular tree, though, you don't think much about such intangibles—like any good, untheoretical lumberjack, you're a lot more concerned with superficialities, such as which way the grain runs, how to avoid the knots, and so on. It's very restful. So long as a cyberneticist is sawing and chopping, he's not a sliver of uncontaminated cerebrum contemplating the eternal slippery verities of gravity and electromagnetism; he's just one more guy trying to slice up one more log. Makes him feel he belongs to the human race again. Einstein, you know, used to get the same results with a violin."

Now, I've heard talk like that before, and I don't like it. I don't like it at all. It so happens that I feel very strongly on the subject. I think a scientist should like what he's doing and not want to take refuge in Nature from the Laws of Nature (which is downright illogical, anyhow). I, for one, enjoy cutting logs precisely *because*, when my saw rasps across a knot, I know that the innermost secret of that knot, as of all matter in the Universe, is $E=MC^2$. It's my job to know it, and it's very satisfying to *know* that I know it and that the general run of people don't. I was about to put this thought into words, but before I could open my mouth, somebody behind us spoke up.

"Bravo, Goldie," he said. "Let us by all means pretend that we belong to the human race. Make way for the new cyberneticists with their old saws. Cyberneticist, spare that tree!"

I turned around to see who could be making jokes in such bad taste and—as I might have guessed—it was Len Ellsom. He was just as surprised as I was.

"Well," he said, "if it isn't Ollie Parks! I thought you were out in Cal Tech, building schizophrenic bedbugs."

After M. I. T. I *had* spent some time out in California doing neuro-cyber research, I explained—but what was *he* doing here? I'd lost track of him after he'd left Boston; the last I'd heard, he'd been working on the giant robot brain Remington-Rand was developing for the Air Force. I remembered seeing his picture in the paper two or three times while he was working on the brain.

"I was with Remington a couple of years," he told me. "If I do say so myself, we built the

Air Force a real humdinger of a brain—in addition to solving the most complex problems in ballistics, it could whistle *Dixie* and, in moments of stress, produce a sound not unlike a Bronx cheer. Naturally, for my prowess in the electronic simulation of I.Q., I was tapped for the brain department of these hallowed precincts."

"Oh?" I said. "Does that mean you're in MS?" It wasn't an easy idea to accept, but I think I was pretty successful in keeping my tone casual.

"Ollie, my boy," he said in an exaggerated stage whisper, putting his finger to his lips, "in the beginning was the word and the word was mum. Leave us avoid the subject of brains in this *keen* place. We all have a job to do on the team." I suppose that was meant to be a humorous imitation of the boss; Len always did fancy himself quite a clown.

We were separated during the sawing, but he caught up with me on the way back and said, "Let's get together soon and have a talk, Ollie. It's been a long time."

He wants to talk about Marilyn, I suppose. Naturally. He has a guilty conscience. I'll have to make it quite clear to him that the whole episode is a matter of complete indifference to me. Marilyn is a closed book in my life; he must understand that. But can you beat that? He's right in the middle of MS! That lad certainly gets around. It's the usual Ellsom charm, I suppose.

The usual Ellsom technique for irritating people, too. He's still trying to get my goat; he knows how much I've always hated to be called Ollie. Must watch Goldweiser. Thought he l a u g h e d pretty heartily at Len's wisecracks.

October 18, 1959

THINGS are shaping up in the Pro lab. Here's how I get the picture.

A year ago, the boss laid down a policy for the lab: begin with legs because, while the neuromotor systems in legs and arms are a lot alike, those in legs are much simpler. If we build satisfactory legs, the boss figures, we can then tackle arms; the main difficulties will have been licked.

Well, last summer, in line with this approach, the Army picked out a double amputee from the outpatient department of Walter Reed Hospital — fellow by the name of Kujack, who lost both his legs in a land mine explosion outside Pyongyang—and shipped him up here to be a subject in our experiments.

When Kujack arrived, the neuro boys made a major deci-

sion. It didn't make sense, they agreed, to keep building experimental legs directly into the muscles and nerves of Kujack's stumps; the surgical procedure in these cine-plastic jobs is complicated as all getout, involves a lot of pain for the subject and, what's more to the point, means long delays each time while the tissues heal.

Instead, they hit on the idea of integrating permanent metal and plastic sockets into the stumps, so constructed that each new experimental limb can be snapped into place whenever it's ready for a trial.

By the time I took over, two weeks ago, Goldweiser had the sockets worked out and fitted to Kujack's stumps, and the muscular and neural tissues had knitted satisfactorily. There was only one hitch: twenty-three limbs had been designed, and all twenty- three had been dismal flops. That's when the boss called me in.

There's no mystery about the failures. Not to me, anyhow. Cybernetics is simply the science of building machines that will duplicate and improve on the organs and functions of the animal, based on what we know about the systems of communication and control in the animal. All right. But in any particular cybernetics project, everything depends on just how *many* of the functions you want to duplicate, just how *much* of the total organ you want to replace.

That's why the robot-brain boys can get such quick and spectacular results, have their pictures in the papers all the time, and become the real glamor boys of the profession. They're not asked to duplicate the human brain in its *entirety*—all they have to do is isolate and imitate one particular function of the brain, whether it's a simple operation in mathematics or a certain type of elementary logic.

The robot brain called the Eniac, for example, is exactly what its name implies—an Electronic Numerical Integrator and Computer, and it just has to be able to integrate and compute figures faster and more accurately than the human brain can. It doesn't have to have daydreams and nightmares, make wisecracks, suffer from anxiety, and all that. What's more, it doesn't even have to *look* like a brain or fit into the tiny space occupied by a real brain. It can be housed in a six-story building and look like an overgrown typewriter or an automobile dashboard or even a pogo stick. All it has to do is tell you that two times two equals four, and tell you fast.

When you're told to build an artificial leg that'll take the place

of a real one, the headaches begin. Your machine must not only *look* like its living model, it must *also* balance and support, walk, run, hop, skip, jump, etc., etc. *Also*, it must fit into the same space. *Also*, it must feel everything a real leg feels—touch, heat, cold, pain, moisture, kinesthetic sensations—as *well* as execute all the brain-directed movements that a real leg can.

So you're not duplicating this or that function; you're reconstructing the organ in its totality, or trying to. Your pro must have a full set of sensory-motor communication systems, plus machines to carry out orders, which is impossible enough to begin with.

But our job calls for even more. The pro mustn't only *equal* the real thing, it must be *superior!* That means creating a synthetic neuro-muscular system that actually *improves* on the nerves and muscles Nature created in the original!

When our twenty-fourth experimental model turned out to be a dud last week—it just hung from Kujack's stump, quivering like one of my robot bedbugs, as though it had a bad case of intention tremor — Goldweiser said something that made an impression on me.

"They don't want much from us," he said sarcastically. "They just want us to be God."

I didn't care for his cynical attitude at all, but he had a point. Len Ellsom just has to build a fancy adding machine to get his picture in the papers. *I* have to be God!

October 22, 1959

DON'T know what to make of Kujack. His attitude is peculiar. Of course, he's very cooperative, lies back on the fitting table and doesn't even wince when we snap on the pros, and he does his best to carry out instructions. Still, there's something funny about the way he looks at me. There's a kind of malicious expression in his eyes. At times, come to think of it, he reminds me of Len.

Take this afternoon, for instance. I've just worked out an entirely different kind of leg based on a whole new arrangement of solenoids to duplicate the muscle systems, and I decided to give it a try. When I was slipping the model into place, I looked up and caught Kujack's eye for a moment. He seemed to be laughing at something, although his face was expressionless.

"All right," I said. "Let's make a test. I understand you used to be quite a football player. Well, just think of how you used to

kick a football and try to do it now."

He really seemed to be trying; the effort made him sweat. All that happened, though, was that the big toe wriggled a little and the knee buckled. Dud Number Twenty-five. I was sore, of course, especially when I noticed that Kujack was more amused than ever.

"You seem to think something's pretty funny," I said.

"Don't get me wrong, Doc," he said, much too innocently. "It's just that I've been thinking. Maybe you'd have more luck if you thought of me as a bedbug."

"Where did you get that idea?"

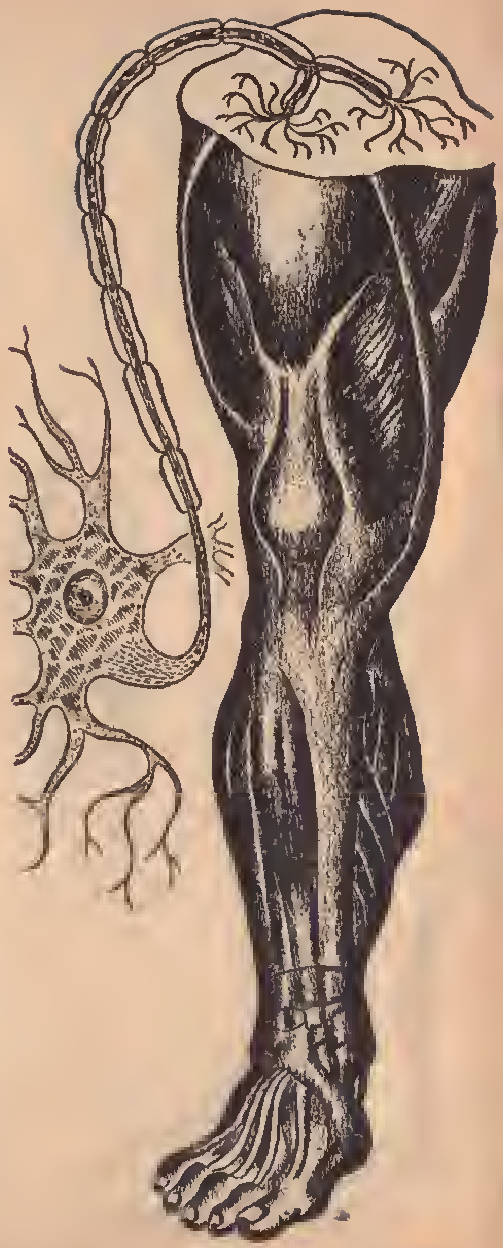
"From Doc Ellsom. I was having some beers with him the other night. He's got a very high opinion of you, says you build the best bedbugs in the business."

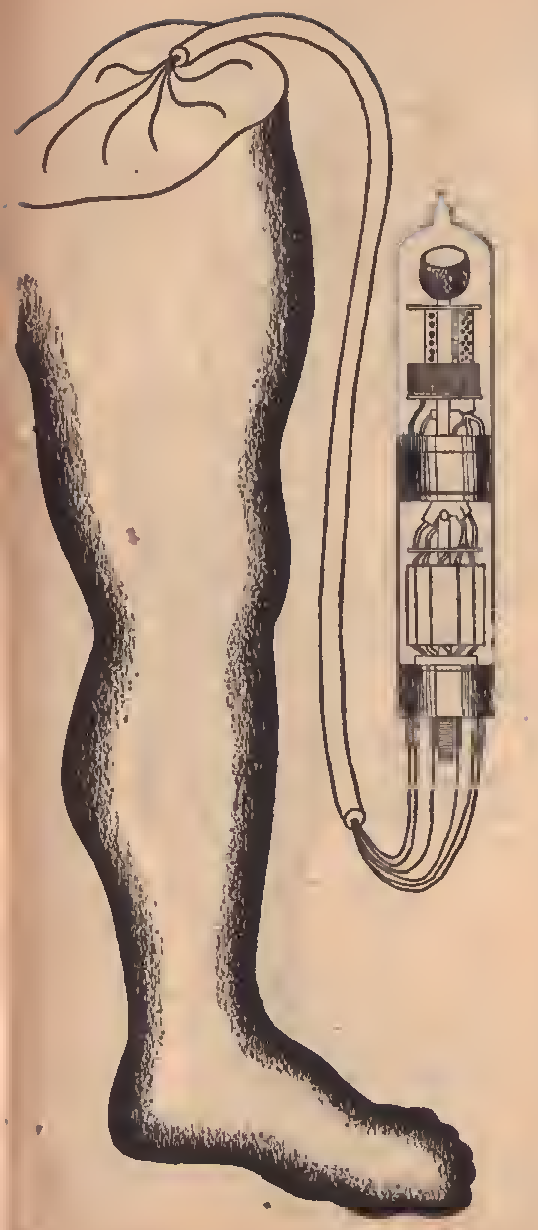
I find it hard to believe that Len Ellsom would say anything really nice about me. Must be his guilt about Marilyn that makes him talk that way. I don't like his hanging around Kujack.

October 25, 1959

THE boss came along on our woodcutting expedition this morning and volunteered to work the other end of my two-handled saw. He asked how things were coming in the Pro lab.

"As I see it," I said, "there





are two sides to the problem, the kinesthetic and the neural. We're making definite progress on the K side—I've worked out a new solenoid system, with some miniature motors tied in, and I think it'll give us a leg that *moves* damned well. I don't know about the N side, though. It's pretty tough figuring out how to hook the thing up electrically with the central nervous system so that the brain can control it. Some sort of compromise system of operation, a l o n g mechanical rather than neural lines, would be a lot simpler."

"You mean," the boss said with a smile, "that it's stumping you."

I was relieved to see him taking it so well because I know how anxious he is to get results from the Pro lab. Since Pro is one of the few things going on at IFACS that can be talked about, he's impatient for us to come up with something he can release to the press. As the public relations officer explained it to me at dinner the other night, people get worried when they know there's something like IFACS going, but don't get any real information about it, so the boss, naturally, wants to relieve the public's curiosity with a good, reassuring story about our work.

I knew I was taking an awful chance spilling the whole K-N thing to him the way I did, but

I had to lay the groundwork for a little plan I've just begun to work on.

"By the way, sir," I said, "I ran into Len Ellsom the other day. I didn't know he was here."

"Do you know him?" the boss said. "Good man. One of the best brains-and-games men you'll find anywhere."

I explained that Len had gotten his degree at M.I.T. the year before I did. From what I'd heard, I added, he'd done some important work on the Remington-Rand ballistics computer.

"He did indeed," the boss said, "but that's not the half of it. After that he made some major contributions to the robot chess player. As a matter of fact, that's why he's here."

I said I hadn't heard about the chess player.

"As soon as it began to play a really good game of chess, Washington put the whole thing under wraps for security reasons. Which is why you won't hear any more about it from me."

I'm no Eniac, but I can occasionally put two and two together myself. If the boss's remarks mean anything, they mean that an electronic brain capable of playing games has been developed, and that it's led to something important militarily. Of course! I could kick myself for not having guessed it before.

Brains-and-games—that's what MS is all about, obviously. It had to happen: out of the mathematical analysis of chess came a robot chess player, and out of the chess player came some kind of mechanical brain that's useful in military strategy. *That's* what Len Ellsom's in the middle of.

"Really brilliant mind," the boss said after we'd sawed for a while. "Keen. But he's a little erratic—quirky, queer sense of humor. Isn't that your impression?"

"Definitely," I said. "I'd be the last one in the world to say a word against Len, but he was always a little peculiar. Very gay one moment and very sour the next, and inclined to poke fun at things other people take seriously. He used to write poetry."

"I'm very glad to know that," the boss said. "Confirms my own feeling about him."

So the boss has some doubts about Len.

October 27, 1959

UNPLEASANT evening with Len. It all started after dinner when he showed up in my room, wagged his finger at me and said, "Ollie, you've been a v o i d i n g me. That hurts. Thought we were pals, thick and thin and till debt and death do us part."

I saw immediately that he was drunk—he always gets his words mixed up when he's drunk—and I tried to placate him by explaining that it wasn't anything like that; I'd been busy.

"If we're pals," he said, "come on and have a beer with me."

There was no shaking him off, so I followed him down to his car and we drove to this sleazy little bar in the Negro part of town. As soon as we sat down in a booth, Len borrowed all the nickels I had, put them in the jukebox and pressed the levers for a lot of old Louie Armstrong records.

"Sorry, kid," he said. "I know how you hate this real jazzy stuff, but can't have a reunion without music, and there isn't a polka or cowboy ballad or hillbilly stomp in the box. They lack the folksy touch on this side of the tracks." Len has always been very snobbish about my interest in folk music.

I asked him what he'd been doing during the day.

"Lushing it up," he said. "Getting stinking from drinking." He still likes to use the most flamboyant slang; I consider it an infantile form of protest against what he regards as the "genteel" manner of academic people. "I got sort of restless this morning, so I ducked out and beat it into New York and looked up my friend Steve Lundy in the Village. Spent the afternoon liquidating our joint assets. Liquidating our assets in the joints."

What, I wanted to know, was he feeling restless about?

"Restless for going on three years now." His face grew solemn, as though he were thinking it over very carefully. "I'll amend that statement. Hell with the Aesopian language. I've been a plain lush for going on three years. Ever since—"

If it was something personal—I suggested.

"It is *not* something personal," he said, mimicking me. "Gosh I can tell an old cyberneticist pal about it. Been a lush for three years because I've been scared for three years. Been scared for three years because three years ago I saw a machine beat a man at a game of chess."

A machine that plays chess? That was interesting, I said.

"Didn't tell you the whole truth the other day," Len mumbled. "I *did* work on the Remington-Rand computer, sure, but I didn't come to IFACS directly from that. In between I spent a couple years at the Bell Telephone Labs. Claude Shannon—or, rather, to begin with there was Norbert Wiener back at M.I.T.—it's complicated . . ."

"Look," I said, "are you sure you want to talk about it?"

"Stop wearing your loyalty oath on your sleeve," he said belligerently. "Sure I want to talk about it. Greatest subject I know. Begin at the beginning. Whole thing started back in the Thirties with those two refugee mathematicians who used to be here at the Institute for Advanced Studies when Einstein was around. Von Morgan and Neumanstern, no, Von *Neu*mann and *Mor*gan-stern. You remember, they did a mathematical analysis of all the possible kinds of games, poker, tossing pennies, chess, bridge, everything, and they wrote up their findings in a volume you certainly know, *The Theory of Games*.

"Well, that got Wiener started. You may remember that when he founded the science of cybernetics, he announced that on the basis of the theory of games, it was feasible to design a robot computing machine that would play a better than average game of chess. Right after that, back in '49 or maybe it was '50, Claude Shannon of the Bell Labs said Wiener wasn't just talking, and to prove it he was going to *build* the robot chess player. Which he proceeded withforth—forthwith—to do. Sometime in '53, I was taken off the Remington-Rand project and assigned to Bell to work with him."

"Maybe we ought to start back," I cut in. "I've got a lot of work to do."

"The night is young," he said, "and you're so dutiful. Where was I? Oh yes, Bell. At first our electronic pawn-pusher wasn't so hot—it could beat the pants off a lousy player, but an expert just made it look silly. But we kept improving it, see, building more and more electronic anticipation and gambit-plotting powers into it, and finally, one great day in '55, we thought we had all the kinks ironed out and were ready for the big test. By this time, of course, Washington had stepped in and taken over the whole project.

"Well, we got hold of Fortunescu, the world's champion chess player, sat him down and turned the robot loose on him. For four hours straight we followed the match, with a delegation of big brass from Wasbington, and for four hours straight the machine trounced Fortunescu every game. That was when I began to get scared. I went out that night and got really loaded."

What had he been so scared about? It seemed to me he should have felt happy.

"Listen, Ollie," he said, "for Christ's sake, stop talking like a Boy Scout for once in your life."

If he was going to insult me—

"No insult intended. Just listen. I'm a terrible chess player. Any

five-year-old could chatemeck—checkmate—me with his brains tied behind his back. But this machine which I built, helped build, is the champion chess player of the world. In other words, my brain has given birth to a brain which can do things my brain could never do. Don't you find that terrifying?"

"Not at all," I said. "*You* made the machine, didn't you? Therefore, no matter what it does, it's only an extension of you. You should feel proud to have devised a powerful new tool."

"Some tool," he sneered. He was so drunk by now that I could hardly understand what he was saying. "The General Staff boys in Washington were all hopped up about that little old tool, and for a plenty good reason—they understood that mechanized warfare is only the most complicated game the human race has invented so far, an elaborate form of chess which uses the population of the world for pawns and the globe for a chessboard. They saw, too, that when the game of war gets this complex, the job of controlling and guiding it becomes too damned involved for any number of human brains, no matter how nimble.

"In other words, my beamish Boy Scout, modern war needs just this kind of strategy tool; the General Staff has to be mechanized along with everything else. So the Pentagon boys set up IFACS and handed us a top-priority cybernetics project: to build a superduper chess player that could oversee a complicated military maneuver, maybe later a whole campaign, maybe ultimately a whole global war.

"We're aiming at a military strategy machine which can digest reports from all the units on all the fronts and from moment to moment, on the basis of that steady stream of information, grind out an elastic overall strategy and dictate concrete tactical directives to all the units. Wiener warned this might happen, and he was right. A very nifty tool. Never mind how far we've gotten with the thing, but I will tell you this: I'm a lot more scared today than I was three years ago."

So *that* was the secret of MS! The most extraordinary machine ever devised by the human mind! It was hard to conceal the thrill of excitement I felt, even as a relative outsider.

"Why all the jitters?" I said. "This could be the most wonderful tool ever invented. It might eliminate war altogether."

Len was quiet for a while, gulping his beer and looking off into space. Then he turned to me.

"Steve Lundy has a cute idea," he said. "He was telling me about

it this afternoon. He's a bum, you see, but he's got a damned good mind and he's done a lot of reading. Among other things, he's smart enough to see that once you've got your theory of games worked out, there's at least the logical possibility of converting your Eniac into what he calls an Strategy Integrator and Computer. And he's guessed, simply from the Pentagon's hush-hush policy about it, that that's what we're working on here at IFACS. So he holds forth on the subject of Emsiac, and I listen."

"What's his idea?" I asked.

"He thinks Emsiac might eliminate war, too, but not in the way a Boy Scout might think. What he says is that all the industrialized nations must be working away like mad on Emsiac, just as they did on the atom bomb, so let's assume that before long all the big countries will have more or less equal MS machines. All right. A cold war gets under way between countries A and B, and pretty soon it reaches the showdown stage. Then both countries plug in their Emsiacs and let them calculate the date on which hostilities should begin. If the machines are equally efficient, they'll hit on the same date. If there's a slight discrepancy, the two countries can work out a compromise date by negotiation.

"The day arrives. A's Emsiac is set up in its capital, B's is set up in *its* capital. In each capital the citizens gather around their strategy machine, the officials turn out in high hats and cutaways, there are speeches, pageants, choral singing, mass dancing—the ritual can be worked out in advance. Then, at an agreed time, the crowds retreat to a safe distance and a committee of the top cyberneticists appears. They climb into planes, take off and—this is beautiful—drop all their atom bombs and H-bombs on the machines. It happens simultaneously in both countries, you see. That's the neat part of it. The occasion is called International Mushroom Day.

"Then the cyberneticists in both countries go back to their vacuum tubes to work on another Emsiac, and the nuclear physicists go back to their piles to build more atom bombs, and when they're ready they have another Mushroom Day. One Mushroom Day every few years, whenever the diplomatic-strategic situation calls for it, and nobody even fires a B-B gun. Scientific war. Isn't it wonderful?"

BY the time Len finished this peculiar speech, I'd finally managed to get him out of the tavern and back into his car. I started to drive him back to the

Institute, my ears still vibrating with the hysterical yelps of Armstrong's trumpet. I'll never for the life of me understand what Len sees in that kind of music. It seems to me such an unhealthy sort of expression.

"Lundy's being plain silly," I couldn't help saying. "What guarantee has he got that on your Mushroom Day, Country B wouldn't make a great display of destroying one Emsiac and one set of bombs while it had others in hiding? It's too great a chance for A to take—she might be throwing away all her defenses and laying herself wide open to attack."

"See what I mean?" Len muttered. "You're a Boy Scout." Then he passed out, without saying a word about Marilyn. Hard to tell if he sees anything of her these days. He *does* see some pretty peculiar people, though. I'd like to know more about this Steve Lundy.

November 2, 1959

I'VE done it! Today I split up the lab into two entirely independent operations, K and N. Did it all on my own authority, haven't breathed a word about it to the boss yet. Here's my line of reasoning.

On the K end, we can get results, and fast: if it's just a matter of building a pro that works like the real leg, regardless of what *makes* it work, it's a cinch. But if it has to be worked by the brain, through the spinal cord, the job is just about impossible. Who knows if we'll ever learn enough about neuro tissue to build our own physico-chemico-electrical substitutes for it?

As I proved in my robot moths and bedbugs, I can work up electronic circuits that seem to duplicate one particular function of animal nerve tissue—one robot is attracted to light like a moth, the other is repelled by light like a bedbug—but I don't know how to go about duplicating the tissue itself in all its functions. And until we can duplicate nerve tissue, there's no way to provide our artificial limbs with a neuromotor system that can be hooked up with the central nervous system. The best I can do along those lines is ask Kujack to kick and get a wriggle of the big toe instead.

So the perspective is clear. Mechanically, kinesthetically, motorically, I can manufacture a hell of a fine leg. Neurally, it would take decades, centuries maybe, to get even a reasonable facsimile of the original — and maybe it will never happen. It's not a project I'd care to devote my life to. If Len Ellsom had been working on that sort of thing,

he wouldn't have gotten his picture in the paper so often, you can be sure.

So, in line with this perspective, I've divided the whole operation into two separate labs, K-Pro and N-Pro. I'm taking charge of K-Pro myself, since it intrigues me more and I've got these ideas about using solenoids to get lifelike movements. With any kind of luck I'll soon have a peach of a mechanical limb, motor-driven and with its own built-in power plant, operated by push-button. Before Christmas, I hope.

Got just the right man to take over the neuro lab—Goldweiser, my assistant. I weighed the thing from every angle before I made up my mind, since his being Jewish makes the situation very touchy: some people will be snide enough to say I picked him to be a potential scapegoat. Well, Goldweiser, no matter what his origins may be, is the best neuro man I know.

Of course, personally — although my personal feelings don't enter into the picture at all—I *am* just a bit leary of the fellow. Have been ever since that first log-cutting expedition, when he began to talk in such a peculiar way about needing to relax and then laughed so hard at Len's jokes That sort of talk always indicates to me a lack of reverence for your job: if a thing's worth doing at all, etc.

Of course, I don't mean that Goldweiser's cynical attitude has anything to do with his being Jewish; Len's got the same attitude and he's *not* Jewish. Still, this afternoon, when I told Goldweiser he's going to head up the N-Pro lab, he sort of bowed and said, "That's quite a promotion. I always did want to be God."

I didn't like that remark at all. If I'd had another neuro man as good as he is, I'd have withdrawn the promotion immediately. It's his luck that I'm tolerant, that's all.

November 6, 1959

LUNCH with Len today, at my invitation. Bought him several Martinis, then brought up Lundy's name and asked who he was, he sounded interesting.

"Steve?" Len said. "I roomed with him my first year in New York."

I asked what Steve did, exactly.

"Reads, mostly. He got into the habit back in the 30s, when he was studying philosophy at the University of Chicago. When the Civil War broke out in Spain, he signed up with the Lincoln Brigade and went over there to fight, but it turned out to be a bad mistake. His reading got him in a

lot of trouble, you see; he'd gotten used to asking all sorts of questions, so when the Moscow Trials came along, he asked about them. Then the N.K.V.D. began to pop up all over Spain, and he asked about *it*.

"His comrades, he discovered, didn't like guys who kept asking questions. In fact, a couple of Steve's friends who had also had an inquiring streak were found dead at the front, shot in the *back*, and Steve got the idea that he was slated for the same treatment. It seemed that people who asked questions were called saboteurs, Trotskyite-Fascists or something, and they kept dying at an alarming rate."

I ordered another Martini for Len and asked how Steve had managed to save himself.

"He beat it across the mountains into France," Len explained. "Since then he's steered clear of causes. He goes to sea once in a while to make a few bucks, drinks a lot, reads a lot, asks some of the shrewdest questions I know. If he's anything you can put a label on, I'd say he was a touch of Rousseau, a touch of Tolstoi, plenty of Voltaire. Come to think of it, a touch of Norbert Wiener too. Wiener, you may remember, used to ask some damned iconoclastic questions for a cybernetic-ist. Steve knows Wiener's books by heart."

Steve sounded like a very colorful fellow, I suggested.

"Yep," Len said. "Marilyn used to think so." I don't think I moved a muscle when he said it; the smile didn't leave my face. "Ollie," Len went on, "I've been meaning to speak to you about Marilyn. Now that the subject's come up—"

"I've forgotten all about it," I assured him.

"I still want to set you straight," he insisted. "It must have looked funny, me moving down to New York after commencement and Marilyn giving up her job in the lab and following two days later. But never mind *how* it looked. I never made a pass at her all that time in Boston, Ollie. That's the truth. But she was a screwy, scatterbrained dame and she decided she was stuck on me because I dabbled in poetry and hung around with artists and such in the Village, and she thought it was all so glamorous. I didn't have anything to do with her chasing down to New York, no kidding. You two were sort of engaged, weren't you?"

"It really doesn't matter," I said. "You don't have to explain." I finished my drink. "You say she knew Lundy?"

"Sure, she knew Lundy. She also knew Kram, Rossard, Broyold, Boster, De Kroot and Hayre,

She knew a whole lot of guys before she was through."

"She always was sociable."

"You don't get my meaning," Len said. "I am not talking about Marilyn's gregarious impulses. Listen. First she threw herself at me, but I got tired of her. Then she threw herself at Steve and *he* got tired of her. Damn near the whole male population of the Village got tired of her in the next couple years."

"Those were troubled times. The war and all."

"They were troubled times," Len agreed, "and she was the source of a fair amount of the trouble. You were well rid of her, Ollie, take my word for it. God save us from the intense Boston female who goes bohemian—the icicle parading as the torch."

"Just as a matter of academic curiosity," I said as we were leaving, "what became of her?"

"I don't know for sure. During her Village phase she decided her creative urge was hampered by compasses and T-squares, and in between men she tried to do a bit of painting—very abstract, very imitative-original, very hammy. I heard later that she finally gave up the self-expression kick, moved up to the East Seventies somewhere. If I remember, she got a job doing circuit designing on some project for I.B.M."

"She's probably doing well at it," I said. "She certainly knew her drafting. You know, she helped lay out the circuits for the first robot bedbug I ever built."

November 19, 1959

BIG step forward, if it isn't unseemly to use a phrase like that in connection with Pro research. This afternoon we completed the first two experimental models of my self-propelled solenoid legs, made of transparent plastic so everything is visible—solenoids, batteries, motors, thyratron tubes and transistors.

Kujack was waiting in the fitting room to give them their first tryout, but when I got there I found Len sitting with him. There were several empty beer cans on the floor and they were gabbing away a mile a minute.

Len *knows* how I hate to see people drinking during working hours. When I put the pros down and began to rig them for fitting, he said conspiratorially, "Shall we tell him?"

Kujack was pretty crocked, too. "Let's tell him," he whispered back. Strange thing about Kujack, he hardly ever says a word to me, but he never closes his mouth when Len's around.

"All right," Len said. "You tell him. Tell him how we're going to bring peace on Earth and good

will toward bedbugs."

"We just figured it out," Kujack said. "What's wrong with war. It's a steamroller."

"Steamrollers are very undemocratic," Len added. "Never consult people on how they like to be flattened before flattening them. They just go rolling along."

"Just go rolling, they go on rolling along," Kujack said. "Like Old Man River."

"What's the upshot?" Len demanded. "People get upshot, shot up. In all countries, all of them without exception, they emerge from the war spiritually flattened, a little closer to the insects—like the hero in that Kafka story who wakes up one morning to find he's a bedbug, I mean beetle. All because they've been steamrolled. Nobody consulted them."

"Take the case of an amputee," Kujack said. "Before the land mine exploded, it didn't stop and say, 'Look, friend, I've got to go off; that's my job. Choose which part you'd prefer to have blown off—arm, leg, ear, nose, or what-have-you. Or is there somebody else around who would relish being clipped more than you would? If so, just send him along. I've got to do some clipping, you see, but it doesn't matter much which part of which guy I clip, so long as I make my quota.' Did the land mine say that? No! The victim wasn't consulted. Consequently he can feel victimized, full o self-pity. We just worked it out.'

"The whole thing," Len said. "If the population had been polled according to democratic procedure, the paraplegia and other maimings could have been distributed to each according to his psychological need. See the point? Marx corrected by Freud, as Steve Lundy would say. Distribute the injuries to each according to his need—not his economic need, but his masochistic need. Those with a special taste for self-damage obviously should be allowed a lion's share of it. That way nobody could claim he'd been victimized by the steamroller or got anything he didn't ask for. It's all on a voluntary basis, you see. Democratic."

"Whole new concept of war," Kujack agreed. "Voluntary amputeeism, voluntary paraplegia, voluntary everything else that usually happens to people in a war. Just to get some human dignity back into the thing."

"Here's how it works," Len went on. "Country A and Country B reach the breaking point. It's all over but the shooting. All right. So they pool their best brains, mathematicians, actuaries, strategists, logistics geniuses, and all. What am I saying? They pool their best *robot* brains, their Emsiacs. In a matter of seconds

they figure out, down to the last decimal point, just how many casualties each side can be expected to suffer in dead and wounded, and then they break down the figures. Of the wounded, they determine just how many will lose eyes, how many arms, how many legs, and so on down the line. Now—here's where it gets really neat—each country, having established its quotas in dead and wounded of all categories, can send out a call for volunteers."

"Less messy that way," Kujack said. "An efficiency expert's war. War on an actuarial basis."

"You get exactly the same results as in a shooting war," Len insisted. "Just as many dead, wounded and psychologically messed up. But you avoid the whole steamroller effect. A tidy war, war with dispatch, conceived in terms of ends rather than means. The end never did justify the means, you see; Steve Lundy says that was always the great dilemma of politics. So with one fool sweep—fell swoop—we get rid of means entirely."

"As things stand with me," Kujack said, "if *anything* stands with me, I might get to feeling sore about what happened to me. But nothing happens to the volunteer amputee. He steps up to the operating table and says, 'Just chop off one arm, Doc, the left one, please, up to the elbow if you don't mind, and in return put me down for one-and-two-thirds free meals daily at Longchamps and a plump blonde every Saturday.' "

"Or whatever the exchange value for one slightly used left arm would be," Len amended. "That would have to be worked out by the robot actuaries."

By this time I had the pros fitted and the push-button controls installed in the side pocket of Kujack's jacket.

"Maybe you'd better go now, Len," I said. I was very careful to show no reaction to his baiting. "Kujack and I have some work to do."

"I hope you'll make him a moth instead of a bedbug," Len said as he got up. "Kujack's just beginning to see the light. Be a shame if you give him a negative tropism to it instead of a positive one." He turned to Kujack, wobbling a little. "So long, kid. I'll pick you up at seven and we'll drive into New York to have a few with Steve. He's going to be very happy to hear we've got the whole thing figured out."

I spent two hours with Kujack, getting him used to the extremely delicate push-button controls. I must say that, drunk or sober, he's a very apt pupil. In less than two hours he actually walked! A little unsteadily, to be sure, but

his balance will get better as he practices and I iron out a few more bugs, and I *don't* mean bedbugs.

For a final test, I put a little egg cup on the floor, balanced a football in it, and told Kujack to try a place kick. What a moment! He booted that ball so hard, it splintered the mirror on the wall.

November 27, 1959

LONG talk with the boss. I gave it to him straight about breaking up the lab into K-Pro and N-Pro, and about there being little chance that Goldweiser would come up with anything much on the neuro end for a long, long time. He was awfully let down, I could see, so I started to talk fast about the luck I'd been having on the kinesthetic end. When he began to perk up, I called Kujack in from the corridor and had him demonstrate his place kick.

He's gotten awfully good at it this past week.

"If we release the story to the press," I suggested, "this might make a fine action shot. You see, Kujack used to be one of the best kickers in the Big Ten, and a lot of newspapermen will still remember him." Then I sprang the biggest news of all. "During the last three days of practice, sir, he's been consistently kicking the ball twenty, thirty and even forty yards farther than he ever did with his own legs. Than anybody, as a matter of fact, ever has with real legs."

"That's a wonderful angle," the boss said excitedly. "A world's record, made with a cybernetic leg!"

"It should make a terrific picture," Kujack said. "I've also been practicing a big, broad, photogenic grin." Luckily the boss didn't hear him — by this time he was bending over the legs, studying the solenoids.

After Kujack left, the boss congratulated me. Very, *very* warmly. It was a most gratifying moment. We chatted for a while, making plans for the press conference, and then finally he said, "By the way, do you happen to know anything about your friend Ellsom? I'm worried about him. He went off on Thanksgiving and hasn't been heard from at all ever since."

That was alarming, I said. When the boss asked why, I told him a little about how Len had been acting lately, talking and drinking more than was good for him. With all sorts of people. The boss said that confirmed his own impressions.

I can safely say we understood each other. I sensed a very definite rapport.





November 30, 1959

IT was bound to happen, of course. As I got it from the boss, he decided after our talk that Len's absence needed some looking into, and he tipped off Security about it. A half dozen agents went to work on the case and right off they headed for Steve Lundy's apartment in the Village and, sure enough, there was Len.

Len and his friend were both blind drunk and there were all sorts of incriminating things in the room—lots of peculiar books and pamphlets, Lundy's identification papers from the Lincoln Brigade, an article Lundy was writing for an anarchist-pacifist magazine about what he calls Emsiac. Len and his friend were both arrested on the spot and a full investigation is going on now.

The boss says that no matter whether Len is brought to trial or not, he's all washed up. He'll never get a job on any classified cybernetics project from now on, because it's clear enough that he violated his loyalty oath by discussing MS all over the place.

The Security men came around to question me this morning. Afraid my testimony didn't help Len's case any. What could I do? I had to own up that, to my knowledge, Len had violated Security on three counts: he'd dis-

cussed MS matters with Kujack in my presence, with Lundy (according to what he told me), and of course with *me* (I am technically an outsider, too). I also pointed out that I'd tried to make him shut up, but there was no atopping him once he got going. Damn that Len, anyhow. Why does he have to go and put me in this ethical spot? It shows a lack of consideration.

These Security men can be *too* thorough. Right off they wanted to pick up Kujack as well.

I got hold of the boss and explained that if they took Kujack away we'd have to call off our press conference, because it would take months to fit and train another subject.

The boss immediately saw the injustice of the thing, stepped in and got Security to calm down, at least until we finish our demonstration.

December 23, 1959

WHAT a day! The press conference this afternoon was *something*. Dozens of reporters and photographers and newsreel men showed up, and we took them all out to the football field for the demonstrations. First the boss gave a little orientation talk about cybernetics being teamwork in science, and about the difference between K-Pro and N-Pro, pointing out that from the practical, humanitarian angle of helping the amputee, K is a lot more important than N.

The reporters tried to get in some questions about MS, but he parried them very good-humoredly, and he said some nice things about me, some very nice things indeed.

Then Kujack was brought in. He really went through his paces, walking, running, skipping, jumping and everything. It was damned impressive. And then, to top off the show, Kujack place-kicked a football ninety-three yards by actual measurement, a world's record, and everybody went wild.

Afterward Kujack and I posed for the newsreels, shaking hands while the boss stood with his arms around us. They're going to play the whole thing up as IFACS' Christmas present to one of our gallant war heroes (just what the boss wanted: he figures this sort of things makes IFACS sound so much less grim to the public), and Kujack was asked to say something in line with that idea.

"I never could kick this good with my real legs," he said, holding my hand tight and looking straight at me. "Gosh, this is just about the nicest Christmas present a fellow could get. Thank you, Santa."

I thought he was overdoing it

a bit toward the end there, but the newsreel men say they think it's a great sentimental touch.

Goldweiser was in the crowd, and he said. "I only hope that when *I* prove I'm God, this many photographers will show up." That's just about the kind of remark I'd expect from Goldweiser.

Too bad the Security men are coming for Kujack tomorrow. The boss couldn't argue. After all, they were patient enough to wait until after the tests and demonstration, which the boss and I agree was white of them. It's not as if Kujack isn't deeply involved in this Ellsom-Lundy case. As the boss says, you can tell a man by the company, etc.

December 25, 1959

SPENT the morning clipping pictures and articles from the papers; they gave us *quite* a spread. Late in the afternoon I went over to the boss's house for eggnogs, and I finally got up the nerve to say what's been on my mind for over a month now. Strike while the iron's, etc.

"I've been thinking, sir," I said, "that this solenoid system I've worked out for Pros has other applications. For example, it could easily be adapted to some of the tricky mechanical aspects of an electronic calculator." I went into some of the technical details briefly, and I could see he was interested. "I'd like very much to work on that, now that K-Pro is licked, more or less. And if there *is* an opening in MS—"

"You're a go-getter," the boss said, nodding in a pleased way. He was looking at a newspaper lying on the coffee table; on the front page was a large picture of Kujack grinning at me and shaking my hand. "I like that. I can't promise anything, but let me think about it."

I think I'm in!

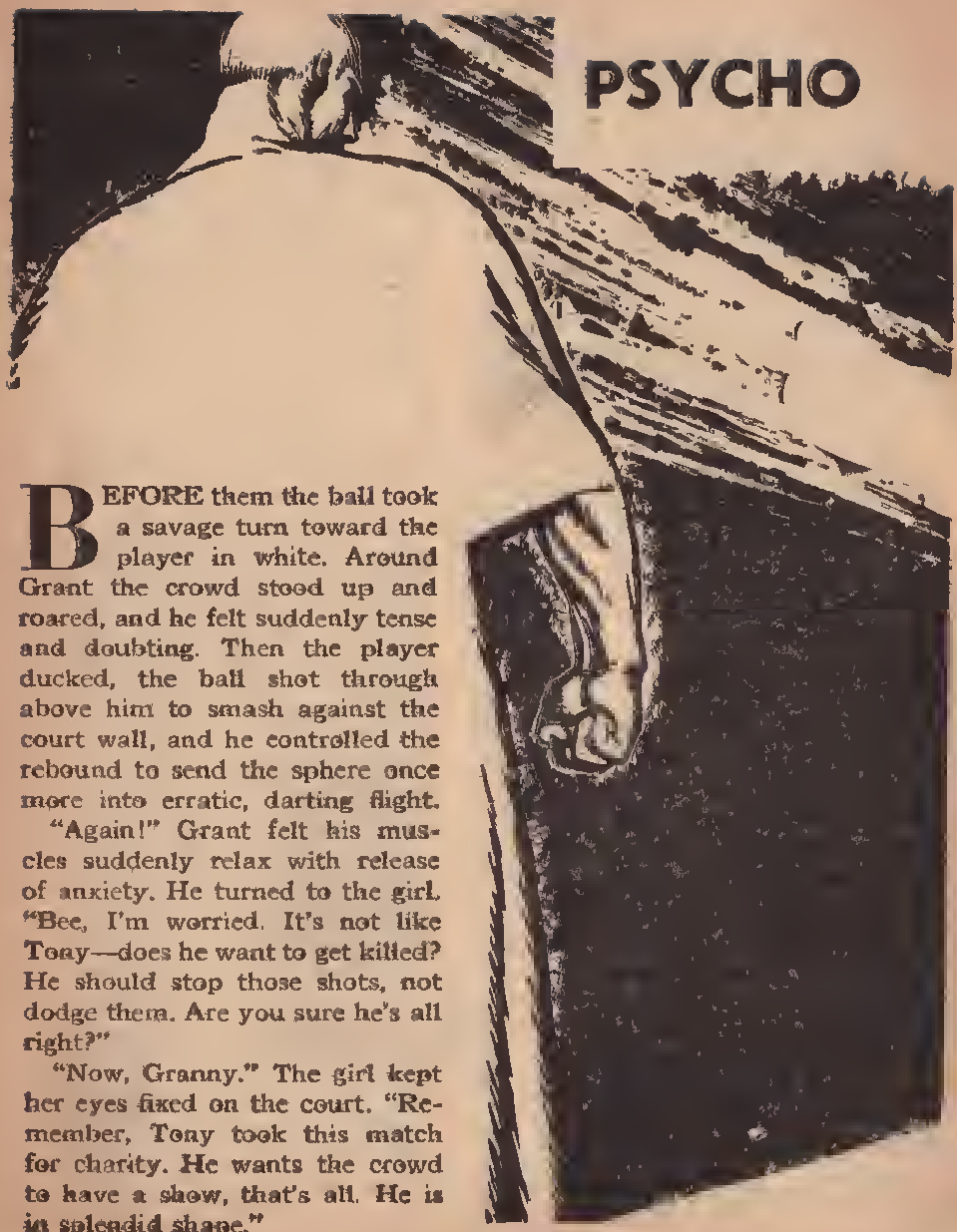
December 27, 1959

SENT the soup-and-fish out to be cleaned and pressed. Looks like I'm going to get some use out of it, after all. We're having a big formal New Year's Eve party in the commons room and there's going to be square dancing, swing-your-partner, and all of that. When I called Marilyn, she sounded very friendly—she remembered to call me Oliver, and I was flattered that she did—and said she'd be delighted to come. Seems she's gotten very fond of folk dancing lately.

Gosh, it'll be good to get out of these dungarees for a while. I'm happy to say I still look good in formals. Marilyn ought to be quite impressed. Len always wore his like pajamas.

—BERNARD WOLFE

PSYCHO



BEFORE them the ball took a savage turn toward the player in white. Around Grant the crowd stood up and roared, and he felt suddenly tense and doubting. Then the player ducked, the ball shot through above him to smash against the court wall, and he controlled the rebound to send the sphere once more into erratic, darting flight.

"Again!" Grant felt his muscles suddenly relax with release of anxiety. He turned to the girl. "Bee, I'm worried. It's not like Tony—does he want to get killed? He should stop those shots, not dodge them. Are you sure he's all right?"

"Now, Granny." The girl kept her eyes fixed on the court. "Remember, Tony took this match for charity. He wants the crowd to have a show, that's all. He is in splendid shape."

TENNIS, ANYONE?

By LLOYD WILLIAMS

If scientific advance changes our forms of courtship, can other sports be far behind? Not when telekinesis is finally perfected!



Illustrated by DAVID STONE

"No sleep," Grant went on worriedly. "I'm sure it must be that. If his brain were alert, he'd control that ball until Slag went crazy. Without sleep, you can't focus prop—"

"Please, Granny, *stop!*" In that instant her throbbing mind touched his, and he caught a glimpse of the alarm in her face. She, too, felt that something was wrong. But she tugged at his sleeve and pointed through the screen at the oval below. "Look!"

Slag's feet were set wide apart, and his black-robed body stood square. But his head had begun a sort of slow wobble, from side to side, as the ball lanced in perihedral swings about the court.

"Praise Allah!" whispered Grant. "A beautiful dance! Tony's thinking that gangster into a coma."

The white player was in concentration, using his eyes only rarely in shifting ever more complex movements to the sphere. Then the rhythmic pattern had become a wild corondo, with Slag as its center, and the dark figure stood hypnotized, with only spasmodic jerks of his brutal features to mark the fear in his mind.

"Now," said Grant. His voice seemed loud in the awed silence of the spectators. "Now, Tony! Call it a day!"

"Just touch him," whispered Bee. "Don't hurt him, Tony."

It was as if they had signaled the player, even through the teleproof screen. Gradually the wild swings of the ball slowed. It circled Slag gently, dropped closer, and poised above him. Tony's mind was clearly in full control of the sensitive sphere.

In a seat behind Grant, an excited man suddenly yelled, "Thumbs down, hard!" Obviously the crowd was ready to sacrifice its erstwhile hero.

Then—the ball moved, a small movement, and there was a roar. Uninfluenced, the ball dropped and rolled to the center court, and Tony stood in bewilderment as Slag shook himself awake.

Grant leaped up and tried to push through to the box exit. Behind him, Bee clung. "Granny, what will you do? What can you . . ."

He shook her off and answered her with his mind as he struggled on. "Stop them, that's what! End the match."

"How? You know you cannot!"

But he felt her mind cling at the hope, and sent back reassurance. "*I* can. They may not like it, but *I* can stop these matches. Don't worry, I'll get your brother safely out of there."

She was relieved. Knowledge of his position—his relation to the sport—he felt her memory produce the reasons. *Sport,*

thought Grant. *I invented a sport. Oh, Allah! What has my sport become?*

And then her mind shrieked at him, stabbed at his brain: "Tony —Tony darling!"

Dazedly he heard the moan and fought a path to the transparent screen. Out on the court lay a white figure, outspread, and the ball rolled slowly past the dripping head.

"Too late!" sobbed Bee. "Too late! Tony . . ."

SOMEHOW she was down there before Grant. He saw her, huddled over Tony's body, as he finally reached an open gate in the domed screen. On the opposite edge of the court, Psychosport Commissioner Woods was in conversation with the referee, Harmon. A flash bulb glowed. Three reporters looked at the fallen player and spoke casually to each other. Towering above the group was Slag, staring down as if surprised.

Grant went first to the Commissioner, who adopted a defensive attitude immediately, throwing up his hands.

"Don't jump on *me*, now. It seems I am helpless. Ask Harmon yourself. There was nothing wrong that he could see."

"That's nonsense," said Grant, "and you know it. No matter who it is, a ball will not smash into an awake player. It simply cannot be done. Even a novice can overcontrol his opponent at that range."

"Right. It couldn't have happened." Sarcasm indicated the worry felt by Woods. "Damn it, Lane, that's the way it is. Harmon watched like a hawk in his bubble. The dome was sealed; not a single leak. Slag's second crouched behind the shield and never moved. I personally supervised Anthony's examination. He was in perfect condition. The only thing yet to check is the ball, but the ball . . ."

"You have it? Never mind, no ball invented could do that alone. Tony could handle any ball, even without the new sensitive core. And in a hundred games every day, they don't ever have this sort of accident."

"Just when Slag plays." The Commissioner touched Grant's arm helplessly. "The force of the man's mind must be terrible, Lane. He must be a superman. But what am I going to do? If I outlaw him without legal grounds . . ." He stopped, gulped nervously.

"There may be no grounds from your point of view and theirs." Grant gestured at the crowd struggling through the exits. "But there are from mine. If I'm to remain Honorary President of the Association, Slag has

got to go. That's final!"

Woods said, "Lane, you could stop this another way. If you don't, and you put Slag out, they will think . . ." But Grant was already hurrying over to Bee Anthony.

More people joined the group and talk died away as uniformed men bent down to the prone figure. Bee sobbed in Grant's arms. Her mind was withdrawn, grieving, and he patted her awkwardly while he thought of how much these young twins had come to mean to him in the years since he began his research in metaphysics. Just children, they had seemed at first. He had been young Doctor Lane, graduate of '52 on fellowship, and they were the kids he had worked with, who had shown remarkable powers of the mind.

Tony and himself—they had formulated the methods which still governed the cultivation of telekinesis. Grant had discovered the principles, but it was the successful results of the Anthony boy's training which paved the way for others to learn. Yet Bee was different. No amount of tutoring could help her influence an object with her mind. Different, but not inferior, for Bee was a telepath. With intimates her conversation was most strange—much of it understood, yet left unspoken.

Grant was one of the intimates. Her silent sorrow would have found him at any distance, but now he tried to evade it, because Tony was gone and Woods had come over to face the reporters—and Slag.

"Mister Woods," began one of the men, but the Commissioner raised a hand and turned to the giant player.

"You have had my personal warning, Slag. Do you think I will allow you to carry on your ugly career? Why, man, you're lucky the courts have not ruled you a murderer!"

"It's not my fault," Slag said. "I didn't *try* to smash him, honest. I don't know my own strength, I guess."

Bee's reddened eyes stared at the man, and Grant whispered, "Darling, can you tell?"

"You know their minds are closed to me. I just feel . . . something *evil*. I must get out of here. Please, Grant, take me away."

Behind Slag the little blond man Teagle, manager and second of the professional, spoke up. "Like Slag says, Commissioner, it isn't his fault. These fast-thinking players match him, get him all excited in the court, and then wonder why they get knocked down. They just don't have the stuff to match a champ."

"Slag is the only man ever warned to pull his shots," agreed

a reporter who was taking notes.

"Gentlemen!" Woods turned to Grant. "All of us here respect the opinion of Dr. Lane, who brought this sport into being and who is, in my estimation, its greatest exponent. I have consulted with him. If he is to retain any connection whatever with the game, he informs me, Slag must get out."

There was silence. The men stared first at the florid-faced Commissioner, then at Grant.

"More than personal considerations are involved," added Woods. "Slag's brutal style of play, according to Dr. Lane, endangers the entire future of this grand sport."

The black-robed player looked around for support. Little Teagle pushed in front of the Commissioner. "You mean that has-been," he pointed at Grant, "is trying to get rid of my boy? It ain't fair, I say. Even when he tries to take it easy, Slag has it tough. They're scared, and won't match us—even these amateurs. And yet look what we've done to pep the game up!"

"You may be right, Mister Teagle. All things considered, however, I feel the merit of Dr. Lane's suggest—"

"Who is this Lane?" The little man's face was fierce. "So he starts the game, and invents the ball, so what? They used to call him a champ, the *master*, but that's a long time ago. Now that he's out, he don't like Slag coming up so strong. It kills him that he ain't the best any more."

"That will be all for tonight. In the morning I'll have an official release ready." The reporters were tense, anxious to miss nothing. "And, gentlemen, you have a good idea of the nature of that statement."

"Wait! I'm telling you," said Teagle. "We've tried to get a match with this Lane. Here it is, boys, the real truth. The guy wants Slag out because he's scared to meet him. Right here and now we challenge him! And I bet he hasn't got the guts to take us up."

"I feel," said Woods, "that a scientist like Dr. Lane should not be subjected to this . . . this insolence."

The reporters ran toward the exit, eager to call in this news break.

Grant said nothing. Aware of Bee's feelings, he shot a look of contempt at Teagle and turned. Yet he knew, as they walked slowly away, that behind him were no feelings of good will. At best, the men awaited his next move—and until then suspended judgment.

IN three days the city became for Grant Lane a savage jun-

gle. The papers shrieked at him Teagle's endless insults, Slag's boastful challenge. Each statement by the Commissioner cleverly shifted more responsibility from Woods to himself, and the tragic end of yet another match was played down until it appeared that Slag, and not his opponent, was the injured party.

After all, was his crowd-convincing argument, did they jail professional fighters in the old days when one was killed? Just a little accident in the heat of fair contest; it was no more than that. Yet there was more, this time. People appeared unsatisfied, disapproving of Grant, as if he should offer himself as a sacrifice to their sympathy with Slag. The one time he went restlessly into the streets, they watched him sullenly, waiting . . .

He kept to his apartment after that, and studied furiously. No man *could* overcontrol an awake opponent in a direct shot—if the ball was all right. As the ball closed in, the approached player's influence grew proportionately stronger, while his opponent's lessened in inverse ratio. That was the reason Grant had originally declared the sport to be safe.

He interrupted his work only briefly for Tony's funeral, and felt an obscure shame in facing Bee Anthony. Then the cellular organism of the sphere used in the game absorbed his attention again. It was an artificially nurtured nerve-center, a growth devised by himself, and seemed to offer the only possible answer. *Perhaps this sub-life had acquired learning ability—the ability to act independently.* It seemed absurd, and yet how much was really known of this highly irritable stuff called living matter?

Bee found him at his apartment the fourth morning. She seemed much more relaxed. "Tony hated useless grief," she said. "I had to come here, Granny. I had to know that we might see the end of all this."

"Yes." Grant still felt a vague shame. "We'll have to stop Slag short, before he adds any more victims."

"Oh, it's more than that! It's the people, too, and the knowledge that more Slags may appear. If all the matches suddenly . . ." She broke off, frowning, as if uncertain whether to continue. "You see, Granny, Tony decided to play because of that. It wasn't even the charities, really. The people distrust you. Not just because you were wrong, but because they are suspicious of any probing into the powers of mind. They prefer fantasy to scientific hypothesis, and now Slag's triumphs . . ." She faltered, and

unhappily twisted her face away.

"But Tony could have crushed Slag, too."

"You know that was different. He had Slag hypnotized first. But Tony was awake when the ball struck!"

"You're right, Bee. Frankly, I don't know what the answer could be. I'm working on the core of the ball. There is a chance—"

"I'm sure it was something else! Granny, have you thought of the screen? There must have been a leak, or a failure. Think of that crowd, hoping for their hero. Suppose they subconsciously influenced the sphere, directed it at Tony."

He thought of the mob's reaction when Slag was helpless, and kept silent. It would be cruel to blast her one hope with nothing to offer in exchange.

"You think I'm wrong, but what else would it be? The ball couldn't kill Tony by itself." Then she was in tears. "I should have been there to stop it. He wouldn't take a second—I begged him to let me—and I would have *sensed* any outside influence!"

Grant recognized the guilt feelings she was suffering from. He tried to give comfort, but suddenly she was a woman, proud and independent, and would not stay. Only at the door for one moment did she turn appealingly to him.

"Granny, you're not going to play Slag!"

"Do you want me to? Should I obey the roar of the mob? And look!" He gestured at one of the papers, where a center-page box proclaimed, "Commissioner Rules Out Lane-Slag Match." "At thirty-seven they say I'm too old to play."

"Don't do it, Grant." He felt her conflicting, torn emotions. "Yet, the funny thing is, I don't think I could live if they allow Slag to go on and on."

GRANT'S apartment was ill-equipped for working with micro-organisms. So, although preliminary study opened up no encouraging line of experimentation, next day he transferred his work to the university laboratories. He found his colleagues friendly—one had cheerfully handled Grant's lectures during his absence—but reserved, as if they suspected him to be guilty of some terrible sin, yet hoped he might prove himself innocent.

Barker, the bio-chemist, listened to his theory of the probability of change in the nerve center of the ball. "I have not worked with these cultures," he said. "You claim they are artificially produced solely to provide a focal receptor for the controlling

minds. Are the cells non-reproductive?"

"Yes. You see, the structure must be stable. Any mind can provide the necessary power to move light objects short distances, but focusing that power is the difficulty. Hence the sensitive core. The operator can *sense* where to direct his will."

Barker reflected a moment. "So the culture is purely static — doesn't even amplify the influence. In that case, I can only visualize such changes as natural radiation might bring about. No hope there for a recurrent pattern of change."

"Learning ability — acquisition of power to act voluntarily — I thought the answer might be in that."

"We'll see. Might as well begin there, anyway. Get us a few of the balls, Lane, and I'm sure the staff will gladly try to help out."

That evening Grant walked onto the court of the Colliseum and was made certain of the city's anger toward him. Bee's idea was worth testing, and he had brought with him some student telepaths, but the instant he appeared the crowd rose in a storm of fury. When the announcer requested spectators to direct the ball at Grant, their wrath gave way to cheers, and they concentrated hopefully on crushing him. But the screen held, the telepaths sensed no invading influence as Grant whirled the ball about the court, until in disgust he signaled for the screen to be deactivated.

Instantly the will of the crowd took hold. The sphere jerked erratically until concerted influence steadied it opposite Grant. Then it flashed into motion, a heavy, deadly missile, with all the mind power of a mob driving it murderously across the court at him.

He stopped it easily, six inches away.

BARKER said, "No use seeking further. We may not know everything living organisms can do, but we can certainly tell what is beyond their power. The tests are conclusive."

Lorms, the behaviorist, nodded his head.

For just an instant Grant felt confused, helpless. His original arguments for psychosport were proved valid, but the killings became even more inexplicable — they were logically impossible! And, somehow, that made *him* the criminal.

That left him only one thing to do.

It was humiliating to accept such a solution to his personal problem. He thought of Bee Anthony and nearly turned back. Only since the tragedy had he realized how changed was their relationsbip—and how important

she was to him. Would she scorn his action, think him a slave to public pressure? Probably, but Grant forced his steps onward.

In the lobby of the Page-Horton, Bee caught him by the arm. "Since when," she asked, "do you walk grimly past your friends? . . . No, Grant. Don't bother to think up a story. I know where you are going."

He wanted to chase her away—and to pull her close to him. But she glanced up and laughed. "You look so perplexed and silly. Professor Lorms called me, and of course I knew what you'd do."

"Do you think," said Grant, "that I should, Bee? Is it right?"

"Darling, fighting results from frustration and breeds even more frustration and anger. But somehow men get cornered until—well, they *have* to. Not Tony. He was a gay fool, tilting at windmills. Oh, Grant! I know you're wrong, but you're right, too, and inside I'm so glad!"

He wanted to erase the worry behind her gladness, to smother it with reassurance. They went up together to Slag's suite. Teagle was at the door. "Glad to see you, Mahomet," he said to Grant. "The contract's all ready to sign. I guess you'll want *your* cut for charity, eh?"

"You won't, I suppose."

"Not on your life. Excuse the double meaning, Miss." He smirked at Bee. "I ask you, who's going to match us after we knock this one off?"

Slag stared glumly from a chair, not even removing his hand from the glass beside him. "Practicing," he said. "Getting into shape for our tussle, Doc. Like Teagle said, you had to come across."

Grant took the papers from the manager, filled in the blanks and signed.

"Don't talk much, this Doc Lane," said Slag. "Should I show him, Teagle?"

"Sure thing. Watch this practice, Doc."

The big man concentrated on the amber bottle beside him. Slowly, jerkily, it lifted — one inch, then two. Slag relaxed, and watched it ring as it fell to the table. "My job when I retire," he said. "Got to pour it right into the glass. Pretty hot, eh?"

Grant gave no warning. The man's trousers were deluged as the glass shattered in his hand. He leaped up cursing, and then moved quickly and with ugly purpose toward his visitors.

"Careful, boy," warned Teagle. "There's a dame present."

For fifteen seconds Grant's eyes were locked with Slag's. He looked into their red-rimmed hatred, fought to see the depths of the man. Then, just before the other turned away, an unreasoning, un-

expected emotion surged in Grant. It swept over and left him shaken, all in that instant.

The emotion was fear.

OUT on the court it was anger he felt, anger at Slag, who stood opposite and bowed to the noisy throng, anger at Teagle, who chanted insults until ordered behind the second's shield, at the spectators, packing the Colliseum in hopes of seeing a player maimed or killed—and Bee Anthony, even at Bee.

She had defied him, bribed her way in to act as his second, and had slipped behind the shield at his side of the court. In front of those jeering faces, it was out of the question to make her leave.

There was a roar as the ball dropped from the referee's overhead bubble. Grant left it to Slag, let the man shoot crudely several times, and fought to calm himself. The shots were forceful, but easily stopped and returned. It was like Tony's match, almost too slow at first. Until the players became absorbed, it was hopeless to attempt any kind of hypnotic effects with the ball.

Slag swung the sphere into rapid circles about the court. The crowd watched silently, as if impressed by the player's control. To Grant it was absurd—he knew that any trained child could execute the movements. And yet, Tony must have felt so, too. But that was before—

The ball dropped on him like a hawk, and he almost laughed. To give the gasping crowd a thrill, he barely deflected the shot, and feigned amazement. Slag retrieved control.

Beneath the sudden amusement, Grant was uneasy. Slag had never won a *real* victory—never dazed or hypnotized an opponent before striking. All his triumphs rested on single, smashing thrusts. How was it possible? With such clumsy control, the professional could never set up a victory—yet the record stood. Grant could not fathom the problem. If the match went on forever, he could see no way for Slag to drop him. And if he quickly whirled Slag into dazed defeat, the real mystery might never be solved. His opponent would merely have suffered defeat in a match not even recognized by the Commission.

Now he could guess why Tony had played carelessly. It was not only victory that was sought. He had deluded himself in accepting such an irresponsible way out. The whole affair depressed him, knotted itself into mind-snaring tangles. The ball blurred again and he hardly cared, only ducking to let it splat against the shield behind him. A spurt of

rage sent the sphere spinning back at Slag, but the other diverted it easily into a screen-hugging orbit.

Tony, Slag, Woods and Teagle —they seemed to merge confusedly in his mind. They stood, each in turn, at the door of an iron-barred cell. For Grant, there was no way out. Win or lose, live or die, he was doomed. The light dimmed in the cell. Just for an instant Bee appeared, her hair throwing off sparks of brilliance. She, too, faded out. Neither Bee the child, whom he did not love, nor Bee the woman, who did not love him, could save him. Before him gaped the bottomless pit of shame and penance. He had unloosed a monster on the world. He had to pay for that.

But first Grant had another debt to pay. He tried to throw off the depression, imagining as he did so a sob of joy in the disembodied Bee. He wrested the sweeping ball from Slag, even from the opposite end of the court. He spun it in wild orbits and compensated for the other's furious thrusts. Faster and faster he circled it. Slag's mind could not keep up the pace. The even swings acquired a jogging pattern, edged farther out—to within ten feet of Slag. A quick break lanced behind the man, out again, and then the sphere fell into helical loops, thrice differentiated by harmonic variations, and swept wide around the court.

Somehow Slag's distress gave Grant no pleasure. Defeat seemed to face him everywhere; he read it in his opponent's twisted features, even in the futile effort to withdraw attention from the ball. *It's no good,* he thought. *I have failed all along.*

Savagely he worked the sphere. He would do it quickly. There was no use expecting Tony's fate. The ball darted again for Slag and this time there could be no interference. It became pure mathematics, the motion, complicated far beyond Tony's simple *corondo,* a flashing three-dimensional blur of color. He could not keep it up. The concentration brought an invading blackness to his mind. Somewhere there was a dull roar, and he felt as if his own mind were cracking. His nerves quivered to put an end to it, to touch Slag with the ball. Slowly, cautiously, he brought the sphere down . . .

Slag was not there!

He gaped. His eyes suddenly found the crumpled heap across the court, and relief swept over him. The man was beaten, in a state of collapse, and there was nothing more Grant could do.

"Grant!" Bee screamed. "Oh, no! Grant darling, look up!"

Her radiance was almost blinding. He half-twisted to reach her,

and then his eyes caught it—the ugly sheen of the fast-growing ball. Desperately he turned, and it shifted in unison. Then she shrieked once more, despairingly, and he threw himself flat, arms outstretched, toward her.

The ball's speed was so great that it shattered to pieces against the shield behind him.

From back of the barrier ran Bee. She crouched beside him, and her enveloping warmth lifted the evil spell from his mind. The loud confusion of the crowd burst upon him, he saw the referee's swiftly lowering bubble. He was in control of himself, thanks to Bee's interference, and could act on the knowledge so dangerously gained.

"The murderer!" Grant pulled Bee up with him. "We've got him!"

Opposite them, Slag still lay on the court.

"I don't see how he did it," Grant said bewilderedly.

"Not Slag—*him!*" She pointed out the small, running figure.

Teagle battered vainly at a gate. The still-active screen held him back, and the man's face was a despairing white grimace. Then Grant was upon him, and took him by the throat.

WOODS paced the dressing room, still confused. "I begin to see," he said, "but what can I do with the two of them?"

"Stop worrying." Grant was curt. "You can do nothing. The law will take Teagle, and without him Slag is just another bum."

"He never knew," marveled Bee. "Slag never knew how he won."

"I am to blame." Grant thought of the surging fear Teagle had directed in him at Slag's hotel. "I should have known that telepsychical phenomena could be used as a weapon. The man is a freak. He couldn't influence the ball, but communicated overpowering emotion—without even seeing his subjects—from behind his shield. The victims committed suicide, just as I nearly did before Bee . . ."

"What did you feel — a so-called death wish?" asked Woods. "No matter. Not seeing Slag collapse, he overplayed his hand."

"Slag's being unconscious merely provided an anti-climax," said Grant. "There was a more important factor added this time. And if you don't mind, Woods, I have an apology to make in private to my one and only second."

"Not just the only one, darling," said Bee. "But your permanent, till-death-do-us-part second! Right?"

"Right!" Grant said.

"That's the only thing tonight," said Woods, "of which I officially approve." —LLOYD WILLIAMS



SEEDS OF LIFE, by John Taine. Fantasy Press, Reading, Pa., 1951. 255 pages, $2.75.

THE eleventh of Eric Temple Bell's pseudonymous science fictions to get into book form during the last quarter-century, this deals with the science and mystery of evolution. It does so in a style that can only be forgiven because of its age (1931) and with characterizations and a plot that can hardly be forgiven at all—and yet it is a superb tale that every lover of science fiction will want to have around.

The story tells of the effects (imagined) of certain short-wave radiations on biological life. At "low" voltages the unicellular life on the skin of the operator begins racing frantically through the stages of evolution on the unicellular level; it gives him the itch. At higher powers, the same speeding-up of life processes happens to some black widow spiders, a frog, and a chicken; and at still higher powers to man.

The horror of the whole concept—and the book is essentially a horror story—is that Taine conceives of evolution as a circular

process, ending near where it began, with the reptiles. This happens with the eggs that Bertha the hen mothered, and also with a man-child.

One human being is actually transmuted into the Man of the Future, rather than to a reptilian predecessor, and it is around this incredible genius, Miguel de Soto, that the plot revolves.

Completely off-trail science fiction—and highly recommended therefore.

GREAT STORIES OF SCIENCE FICTION, edited by Murray Leinster. Introduction by Clifton Fadiman. Random House, New York, 1951. 321 pages, $2.95.

There has never been another science fiction collection like this one; it is unique. Leinster has been given the opportunity of selecting the stories he likes best from the whole field of science fiction, and somebody has not only published his selection but (presumably) paid him to make it The result? Just as screwy and delightful a book as would be the one you or I would turn out if we were given this chance.

The two introductions are worth the price of admission alone. Fadiman's is a beautifully literate and practically definitive anatomy of modern science fiction — brief, succinct, scholarly and luminously intelligent. Leinster's is an enchantingly bizarre, gadget-crazy, hobby-riding, history-hopping and totally Leinsterish gallop through the whole field of science, from Ben Franklin down to the atomic machine named Elsie, and then out beyond the Fitzgerald Contraction into the stories in the book itself. These number twelve, as follows:

The Fascinating Stranger by Michael Fessier (a dandy tale you probably never have seen); *Liquid Life* by Ralph Milne Farley (about thinking viruses); *Symbiosis by* Will Jenkins (and no comment from me, either!); *Number Nine* by Cleve Cartmill (a story about a rabbit); *Blind Alley* by Malcolm Jameson (pleasant even though it's not science fiction —it's *Unknown Worlds* fantasy); *In Hiding* by Wilmar Shiras (about mutants); *No Woman Born* by C. L. Moore (one of the truly great science fiction stories); *The Strange Case of John Kingman* by Murray Leinster (ditto); *Open Secret* by Lewis Padgett (unforgettable goose - pimpler); *The Chronokinesis of Jonathan Hull* by Anthony Boucher (bewildering!); and *The Chromium Helmet* by Theodore Sturgeon (I adore this tale). Five of the above —at least—have been anthologized before, but worth many more reprintings.

At the end there is a list of 70

more anthologized stories that M. L. also liked. A wonderful list, indicating how rich and varied modern science fiction is.

It's *particularly* valuable as a means of converting the heathen to science fiction, but you'll make sure you get the book back so you can read it yourself.

THE TOYMAKER, by Raymond F. Jones. Fantasy Publishing Co., Inc., Los Angeles, Calif., 1951. 287 pages, $3.00.

A collection of six Jones novelets and short stories, ranging in quality from the fine tale that gives the book its title down to the piece of gadget-space-opera called *Utility*. In between, you have Jones on all levels.

The Toymaker tells how a retired Professor of Peace and a physicist-inventor together defeat the war drive of a certain planet's politicians by "taking over" the imaginations of most of the children. They develop toys called "Imaginos" which operate through a combination of hypnotism and mass emotionalism. At first the children see fascinating games and actions in the toys; but later, as the war hysteria rises in the real world, the hand of violence actually strikes in the Imagino-worlds. The politicians are forced to abandon the war drive in order to save the children's sanity. A shocking fable for our times.

The Model Shop tells of the advent of men from the future in an engineering development laboratory of today, and the hob that results when they apply their immensely advanced technology to our rather crude machine concepts.

The Deadly Host is an unoriginal but exciting tale about mechanical insect-robots, self-reproducing, who live by draining Earth's electricity—and, obviously, its civilization, too.

Utility is really a low-grade, pseudo-funny space opera having to do with a pathological drunk named Hydrophobia McCord, some *objets* called Jewelworlds from the planet Merans, and a passel of other nonsense, including an honest-to-God Villain.

Forecast is about weather-control in the future—how men move storms about and create rain when they want it—and how the Big Bad Hydroponics Trust tries to break 'em up because they are bringing back natural farming and putting hydroponics out of business. Excellent scientific imagination; pretty primitive plotting.

As for *Children's Room*, it is in the grand tradition of the Padgett - MacDonald - Shiras - Stapledon mutant stories. Here the mutants have been escaping to another dimension for hundreds of

years; this particular tale tells how a modern one gets from our world to theirs.

NATURE'S WAYS, by Roy Chapman Andrews. Crown Publishers, New York, 1951. 206 pages, $3.75.

THIS 8" by 11" book's subtitle describes what it does. "How Nature Takes Care of Its Own" is what it says, and the book contains about 140 different examples of how animals of innumerable sorts, from spiders to marmots, camels to pickaback tadpoles, pikas to okapis (no kidding!) and pied-billed grebes to insect brownies, have adapted their ways to their environment in order to survive.

The exciting tale is told by a master naturalist, and is illustrated with 68 magnificent full-color paintings and over 100 excellent black-and-white photographs. The paintings were done by Andre Durenceau, for the most part, with others contributed by Steven Dohanos, A. J. Kurka, C. B. Falls, et al. It is a book which shows, both in words and pictures, that science fiction still can be outdistanced by Nature, when Nature really tries!

SEETEE SHIP, by Will Stewart. Gnome Press, New York, 1951. 255 pages, $2.75.

"SEETEE" is Contra-Terrene matter, or matter in which each atom is composed of a negative nucleus and positive electrons —just the opposite from the matter we know. Seetee is scientifically possible, having been prognosticated over ten years ago by Nobel prize winning physicists W. Heisenberg, E. Schrodinger and P. A. M. Dirac. They also posited that terrene and contra-terrene matter would annihilate each other on contact—100 per cent efficient release of atomic energy! The uranium bomb releases something like 10 per cent.

Wonderful meat for science fiction, one would say. And "Will Stewart" (Jack Williamson) has here taken full advantage of the concept's possibilities—technically speaking.

But the book's quality as a novel? Here we have a parody United Nations on an interplanetary scale called The Mandate; a real narsty old corporation called Interplanet; The Martian Reich, the Jovian Soviet, and the Earthian I-don't-know-what-all; and finally a few selfless people and their families who (unlike the others) want to develop seetee power for the Good of the People, and to hell with Profit.

It's a good story if you can bear plowing through pages of literary corn-starch.

— GROFF CONKLIN

The Puppet Masters

By ROBERT A. HEINLEIN

CONCLUSION OF A 3-PART SERIAL

Illustrated by Don Sibley

SYNOPSIS

Flying Saucers? Invaders from outer space? Nonsense! That this was any "sensible" person's reaction was one major advantage the parasites of Titan had over us. The other was their ability to take over a city without any apparent sign of doing so. Each parasite was a formless, featureless mass of protoplasm, helpless by itself but able to dominate its victim by clinging to the shoulderblades and taking over the body, the mind and the will

Beaten in every battle with the ghastly invaders, man has one single weapon left — his mind! But will that prove enough?

of its powerless human host.

The parasites had conquered the Mississippi Valley before we could get anyone to listen. I was in it from the start, along with the Old Man (my section chief as well as my father) and another agent known to me as "Mary Cavanaugh." We flushed the first parasite in Des Moines, Iowa, soon after their first landing, through one of the few failures on the part of the parasites to simulate human behavior, i.e., a man possessed failed to show a normal, healthy, male response to Mary's red-haired beauty.

If not for that, the parasites would have been completely perfect fifth columnists. They would seize first those persons concerned with communications and public order and thereby suppress the very knowledge of their own existence. I myself was captured by one we had fetched back from Iowa, and I secured for them the city of New Brooklyn before I was recaptured and freed by the Old Man. Thereafter I was coerced by him into permitting myself to be "interviewed" while possessed by a parasite, but under close restraint. This was the foulest trick ever played on a man, for the Old Man used Mary as bait to force me to agree to being possessed again by one of the dirty slugs—knowing that I was in love with Mary. It made me disgusted with them both.

But it did enable us to learn where they came from—Titan, moon of Saturn. This time we had proof we could show to the President. Not enough proof to convince Congress of the incredible danger, however. It took a joint session in which seven parasites were captured right on the floor of Congress, off the bodies of possessed Congressmen, before they granted emergency powers to act. By then the country was split in two, from Canada to New Orleans.

With the President setting the example, the unconquered part of the country stripped down to shorts for men and shorts and halters for women in order to give the parasites no place to hide. A paratroop task force was organized to redeem the Central Valley. It was believed that the parasites were comparatively few in number and that the area could be recaptured by concentrating on stereo stations, police headquarters and the like. I was sent by the Old Man on a scouting expedition to Kansas City just before the air drop.

I made the overwhelming discovery that we had vastly underestimated their numbers; Kansas City was not merely "secured"—it was saturated. Well over 90% of the population was possessed, although the parasites, for rea-

sons of their own, were still maintaining the masquerade of a normal human society.

I barely got out without being repossessed, but not in time to prevent the paratroop assault. Against such smothering odds, the task force was lost to the last man. Had we properly studied the parasites already captured, we might have predicted it, for, given an adequate supply ol hosts, the Titans could multiply indefinitely, by conjugation followed by fission reproduction.

We settled down to a stalemate siege. Under "Schedule Bareback" it seemed hardly possible for the parasites to infiltrate out of the Mississippi Valley, but, on the other hand, we had not devised any way to rescue the millions of human victims in the central states.

As lor me, I was still shaken by the horror of being possessed. Mary and I took a few days leave together and I bullied her into martying me.

We went to my cabin in the Adirondacks; there followed the only completely happy period of my life. We never listened to a newscast; we saw no one; we put the Titan parasites out of our minds. Just Mary, me, and my cat, Pirate, loafing together in purring contentment and letting the golden days drift by . . . until one night Mary stepped out to call the cat. When she came in, she was possessed.

I could spot the tell tale hump under her negligee, could not lail to see the staring horror in her eyes. I tackled her—but Mary herself was also an agent, almost as strong as I was and just as skilled in the arts of rough-and-tumble killing. I had to overcome her without killing her, without letting her kill me, and without letting the parasite touch me. As a desperate last resort I forced her shoulders over the open fire in the fireplace, burning her badly, but causing the parasite to drop to the floor. I was busy then putting out her burning hair and clothing.

When I turned, the cat was possessed by the parasite. I grabbed the cat, parasite and all, and forced them into the fire. I killed the Titan parasite, but in so doing killed my pet cat. I dug him a little grave, said good-by to him, and buried him. Then I sat beside Mary and waited for her to waken lrom the shot ol sedative I had given her.

XXIII

About dawn Mary bec n to struggle and moan. I put a hand on her. "There, baby, it's all right. Sam's here."

Her eyes opened and for a moment held the same horror. Then

she saw me and relaxed. "Sam! Oh, darling, I've had the most terrible dream."

"It's all right," I repeated.

"Why are you wearing gloves?" She became aware of her own dressings; she looked dismayed and said, "It *wasn't* a dream!"

"No, dearest, it wasn't a dream. But it's all right; I killed it."

"You're sure?"

"Quite sure."

"Come here, Sam. Hold me tight."

I did, while trying to be careful of her burns. Presently her trembling stopped. "Forgive me, darling—I'm weak and womanish."

"You should have seen the shape I was in after I was possessed."

"I did see. Now tell me what happened. The last I remember, you were trying to force me into the fireplace."

"Look, Mary, I couldn't help it. I had to. There was no other way to get it off."

"I know, darling, and thank you for doing it! Again I owe you everything."

She then cried and I blew my nose and went on, "You didn't answer when I called, so I went into the living room and there you were."

"I remember. Oh, darling, I tried so hard!"

I stared at her. "I know you did. You tried to leave. But how? Once a slug gets you, there's no way to fight it."

"Well, I lost—but I tried." Somehow, Mary had forced her will against that of a parasite and that can't be done. I *know*. I had a sneaking hunch that had Mary not been able to resist the slug to some extent, however slight, I would have lost the struggle, handicapped as I was by fear of killing her, too.

"I should have used a light, Sam," she added, "but it never occurred to me to be afraid *here*." I nodded; this was the safe place, like crawling into bed or into sheltering arms. "Pirate came at once. I didn't see the slug until I had touched him. Then it was too late." She sat up. "Where is he, Sam? Is he all right? Call him."

So I had to tell her about Pirate. She listened without expression, nodded and never referred to him again. I changed the subject by saying, "Now that you are awake, I had better fix you some breakfast."

"*Don't go!*" I stopped. "Don't go out of my sight at all," she begged, "not for any reason. I'll get breakfast."

"The hell you will. You'll stay in bed like a good girl."

"Come here and take off those gloves. I want to see your hands." I did not take them off—could

not bear to think about it; the anesthesia had worn off. She said grimly, "Just as I thought. You were burned worse than I was."

So she got breakfast. Furthermore, she ate. I wanted nothing but coffee. I did insist that she drink a lot, too; large area burns dehydrate the body. Presently she pushed aside her plate and said, "Darling, I'm not sorry it happened. Now we've both been there." I nodded dumbly. Sharing happiness is not enough. She stood up and told me, "We must go."

"Yes," I agreed. "I want to get you to a doctor as soon as possible."

"I didn't mean that."

"I know you didn't." There was no need to discuss it; we both knew the music had stopped and it was time to go back to work. The heap we had arrived in was still sitting on my landing flat, piling up rental charges. It took about three minutes to burn the dishes, switch off everything, and get ready.

Mary drove, because of my hands. Once in the air she said, "Let's go straight to the Section offices. We'll get treatment there and find out what has been going on—or are your hands hurting too badly?"

"Suits," I said. I wanted to learn the situation and I wanted to get back to work. I asked Mary to switch on the squawk screen to catch a newscast. But the car's communication equipment was as junky as the rest of it; we could not even pick up audio. Fortunately the remote control circuits were okay, or Mary would have had to buck traffic on manual.

A thought had been fretting me; I mentioned it to Mary. "A slug wouldn't mount a cat just for the hell of it, would it?"

"I suppose not."

"But *why?* It *has* to make sense; everything they do makes sense, from their viewpoint."

"But it did make sense. They caught a human that way."

"Yes, I know. But how could they plan it? Surely there aren't so many of them that they can afford to gamble like that. Or are there?" I remembered Kansas City, saturated, and shivered. "Where did the slug come from? It had to get to the Pirate on the back of another host. What host? I'll say it was Old John—John the Goat. Pirate wouldn't let any other human get close to him."

"Old John?" Mary closed her eyes, thought hard, then opened them. "I can't get any feeling about it. I was never close to him."

"By elimination I think it must be true. Old John wore a coat when everyone else was complying with the bareback order. Ergo, he was hag-ridden before Sched-

ule Bareback. But why would a slug single out a hermit way up in the mountains?"

"To capture you."

"Me?"

"To *recapture* you."

It made some sense. Possibly any host that ever escaped them was a marked man. In that case, the dozen-odd Congressmen we had rescued were in special danger. I'd mark that down to turn in for analysis.

On the other hand, the slugs might want me in particular. What was special about me? I was a secret agent. More important, the slug that had ridden me knew what I knew about the Old Man, and was aware that I had access to him. I felt emotionally certain that the Old Man was their principal antagonist; the slug must have known that I thought so, for he had had full use of my mind.

That slug had even met the Old Man, talked with him. Wait a minute—that slug was dead. My theory came tumbling down.

And built up again at once. "Mary," I asked, "have you used your apartment since the morning you and I had breakfast there?"

"No. Why?"

"Don't go back there for any purpose. I recall thinking, while I was with *them*, that I would have to boobytrap it."

"Well, you didn't, did you?"

"No, but it may have been boobytrapped since then. There may be the equivalent of Old John waiting, spider fashion, for you—or me—to return there." I explained to her McIlvaine's "group memory" idea. "I thought at the time he was spinning the dream stuff scientists are so fond of. But now it's the only hypothesis I can think of that covers everything . . . unless we assume that the titans are so stupid that they would as soon fish in a bathtub as in a brook. Which they aren't."

"Just a moment, dear. By Dr. McIlvaine's theory, each slug is really every other slug; is that it? In other words, that *thing* that caught me last night was just as much the one that rode you when you were with them as was the one that actually did ride you— Oh, dear, I'm getting confused. I mean—"

"You've got the general idea. Apart, they are individuals. In direct conference, they merge memories and Tweedledum becomes exactly like Tweedledee. If that is true, this one last night remembers everything learned from me, provided it has had direct conference with the slug that rode me, or a slug that had been linked through any number of slugs by direct conference to the slug that had ridden me, after

the time it did—which you can bet it did, from what I know of their habits. It would have—the first one, I mean. Wait a minute. Take three slugs; Joe, Moe and, uh, Herbert. Herbert is the one last night; Moe is the one which—"

"Why give them names if they are not individuals?" Mary asked.

"Just to keep them—no reason; we'll just assume that if McIlvaine is right, there may be millions of slugs who know exactly who we are, by name and sight and everything, know where your apartment is, where mine is, and where our cabin is. They've got us on a list."

She frowned. "That's a horrid thought, Sam. How would they know when to find us at the cabin? We didn't tell anybody. Would they simply stake it out and wait?"

"They must have. We don't know that waiting matters to a slug; time may mean something different to them."

"Like Venerians," she suggested. I nodded; a Venerian is likely as not to "marry" his own great-great-granddaughter — and be younger than she is. It depends on how they estivate, of course.

"In any case," I went on, "I've got to report this, including our guesses, for the boys in the analytical group to play with."

I was about to go on to say that the Old Man would have to be especially careful, that it was probably he they were really after. But my secret phone embedded under my scalp sounded for the first time since leave had started. I answered and the Old Man's voice cut in ahead of the talker's: "Report in person."

"On our way," I acknowledged. "About thirty minutes."

"Make it sooner. You use Kay Five; tell Mary to come in by Ell One. *Move!*" He switched off before I could ask him how he had known that Mary was with me.

"Did you get it?" I asked Mary.

"Yes, I was in the circuit."

"Sounds as if the party was about to start."

NOT until we had landed did I begin to realize how wildly the situation had changed. We were complying with Schedule Bareback; we had not heard of Schedule Suntan. Two cops stopped us as we got out. "Stand still!" one of them ordered. "Don't make any sudden moves."

You would not have known they were cops, except for the manner and the drawn guns. They were dressed in gun belts, shoes, and skimpy breech clouts. A second glance showed their shields clipped to their belts. "Now," the same one went on,

"off with those pants, buddy."

I did not move quickly enough. He barked, "Make it snappy! Two have been shot trying to escape today; you may be the third."

"Do it, Sam," Mary said quietly. I did it. It left me dressed in shoes and gloves, feeling like a fool—but I managed to keep my gun covered as I took off my shorts.

The cop made me turn around. His mate said, "He's clean. Now the other one." I started to put on my shorts; the first cop stopped me.

"Looking for trouble? Leave 'em off."

I said reasonably, "I don't want to get picked up for indecent exposure."

He looked surprised, then guffawed and turned to his mate. "You hear that, Ski?"

The second one said patiently, "Listen, you got to cooperate. You know the rules. You can wear a fur coat for all of me—but you'll get picked up D.O.A. The vigilantes are a lot quicker to shoot than we are." He turned to Mary. "Now, lady, if you please."

Without argument Mary started to remove her shorts. The second cop said kindly, "That isn't necessary, lady, not the way those things are built. Just turn around slowly."

"Thank you," Mary said and complied. The policeman's point was well taken; Mary's briefies and halter appeared to have been sprayed on.

"How about those bandages?" the first one commented.

I answered, "She's been badly burned. Can't you see that?"

He looked doubtfully at the sloppy, bulky job I had done on the dressings. "Mmmm," he said, "*if* she was burned."

"Of course she was burned!" I felt my judgment slipping; I was the perfect heavy husband,



unreasonable where my wife was concerned. "Damn it, look at her hair! Would she ruin a head of hair like that just to fool you?"

The first cop said darkly, "One of *them* would."

The more patient one said, "Carl is right. I'm sorry, lady; we'll have to disturb those bandages."

I said excitedly, "You can't do that! We're on our way to a doctor. You'll just—"

Mary said, "Help me unroll the bandages, Sam."

I shut up and started to peel up one corner of the dressing, my hands trembling with rage. Presently the older one whistled and said, "I'm satisfied. How about you, Carl?"

"Me, too, Ski. Cripes, girlie, what happened?"

"Tell them, Sam."

So I did. The older cop finally commented, "So it's cats now. Dogs I knew about. Horses, yes. But you wouldn't think the ordinary cat could carry one." His face clouded. "We got a cat and now we'll have to get rid of it. My kids won't like that."



"I'm sorry," Mary told him.

"It's a bad time for everybody. Okay, folks, you can go."

"Wait a minute," the first one said. "Ski, if she goes through the streets with that thing on her back, somebody is likely to burn her."

The older one scratched his chin. "That's true. We'll just have to dig up a prowl car."

Which they did. I had to pay the charges on the rented wreck, then went along as far as Mary's entrance. It was in a hotel through a private elevator; I got in with her to avoid explanations, then went back up after she got out at a level lower than the obvious controls of the car provided for. I was tempted to go in with her, but the Old Man had ordered me to come in by Kay Five.

I was tempted, too, to put my shorts on. In the prowl car and during a quick march through a side door of the hotel, with police around us to keep Mary from being shot, I had not minded much—but it took nerve to face the world without pants.

I need not have worried. The short distance I had to go was enough to show me that a basic custom had gone with last year's frost. Most men were wearing clouts, but I was not the only man naked to his shoes. One in particular I remember; he was leaning against a street roof stanchion and searching with cold eyes every passerby. He was wearing nothing but slippers and a brassard lettered "VIG" and he was cradling an Owens mob gun. I saw three more like him; I was glad that I was carrying my shorts.

Few women were naked, but the rest might as well have been —string brassieres, translucent trunks, nothing that could hide a slug. Most of the women would have looked better in togas. That was my first impression, but before long even that had worn off. Ugly bodies weren't any more noticeable than ugly taxicabs; the eye ignored them. Skin was skin and what of it?

I was let in to see the Old Man at once. He looked up and growled, "You're late."

I answered, "Where's Mary?"

"In the infirmary, getting treated and dictating her report. Let's see your hands."

"I'll show them to the doctor, thanks. What's up?"

"If you would ever bother to listen to a newscast," he grumbled, "you would know what was up."

XXIV

HAD Mary and I watched the stereo, our honeymoon would never have gotten to first base.

My suspicion that the slugs could hide themselves on any part of the body and still control hosts had been correct; it had been proved by experiment before Mary and I had holed up on the mountain, although I had not seen the report. I suppose the Old Man knew it. Certainly the President and the high brass did.

So Schedule Suntan replaced Schedule Bareback and everybody skinned down to the buff—

Like hell they did! The matter was still "Top Secret" at the time of the Scranton Riot. Don't ask me why; our government has gotten the habit of classifying information, practically all information, a Mother-Knows-Best-Dear policy. The Scranton Riot should have convinced anybody that the slugs were loose in Zone Green, but even that did not bring on Schedule Suntan.

The fake air raid alarm on the East Coast took place, as I figure it, the third day of our honeymoon; afterward it took a while to figure out what had hapened, even though it was obvious that lighting could not fail by accident in so many different shelters. It gives me horrors to think about it— all those people crouching in the darkness, waiting for the all-clear, while zombies moved among them, slapping slugs on them. Apparently in some air raid bunkers the recruitment was one hundred per cent.

So there were more riots the next day and we were well into the Terror. Technically, the start of vigilantism came the first time a desperate citizen pulled a gun on a cop—Maurice T. Kaufman of Albany was the citizen, and the cop was Sergeant Malcolm MacDonald. Kaufman was dead a half second later and MacDonald followed him, torn to pieces by the mob, along with his titan master. But the vigilantes did not really get going until the air raid wardens put organization into the movement.

The wardens, being stationed above ground during raids, largely escaped, but they felt responsible. Not that all vigilantes were wardens, but a stark naked, armed men on the street was as likely to be wearing a warden's armband as the VIG brassard. Either way, you could count on him shooting at any unexplained excrescence on a human body— shoot and investigate afterward.

WHILE my hands were dressed, I was brought up to date. The doctor gave me a short shot of tempus and I spent the time—subjective, about three days; objective, less than an hour —studying stereo tapes through an overspeed scanner. This gadget has never been released to the public, though it is bootlegged

at some of the colleges around examination week. You adjust the speed to match your subjective rate and use an audio frequency stepdown to let you hear what is being said. It is hard on the eyes, but it is a big help in cramming.

It was hard to believe that so much could have happened. Take dogs. A vigilante would kill a dog on sight, even though it was not wearing a slug—because it was even money that it would be wearing one before sunrise, that it would attack a man and that the titan would change riders in the dark.

A hell of a world where you could not trust dogs!

Apparently cats were hardly ever used; poor old Pirate was an exception. But in Zone Green dogs were rarely seen now by day. They filtered out of Zone Red at night, traveled in the dark and hid out at dawn. They kept showing up even on the coasts. It made one think of werewolf legends.

I scanned dozens of tapes which had been monitored from Zone Red. They fell into three time groups: the masquerade period, when the slugs had been continuing the "normal" broadcasts; a short period of counter-propaganda, during which the slugs had tried to convince citizens in Zone Green that the government had gone crazy; and the current period in which pretense had dropped.

According to Dr. McIlvaine, the titans have no true culture; they are parasitic even in that and merely adapt the culture they find. Maybe he assumes too much, but that is what they did in Zone Red. The slugs would have to maintain the basic economic activity of their victims, since the slugs would starve if the hosts did. They continued that economy with variations that we would not use—that business of processing damaged and excess people in fertilizer plants, for example—but in general farmers stayed farmers, mechanics went on being mechanics, and bankers were still bankers. That last seems odd, but experts claim that any "division-of-labor" economy requires an accounting system.

But why did they continue human recreations? Is the desire to be amused a universal need? What they picked from human ideas of fun to keep and "improve on" does not speak well for us, although some of their variations may have merit. That stunt they pulled in Mexico, for example, of giving the bull an even break with the matador.

But most of it just makes one sick and I won't elaborate. I am one of the few who saw even transcriptions on such things; I saw them professionally. I hoped

that Mary, in her briefing, did not have to look at them, but Mary would never say so if she had.

There was one thing I saw in the tapes so outrageous, so damnably disgusting that I hesitate to mention it, though I feel I must. There were men aod women here and there among the slaves, humans— if you could call them that—without slugs.

I hate slugs, but I would turn from killing a slug to kill a renegade.

WE were losing ground everywhere; our methods were effective only in stopping their spread, and not fully effective in that. To figbt them directly we would have to bomb our own cities, with no certainty of killing the titans. What we needed was a weapon that would kill slugs but not men, or something that would disable humans or render unconscious without killing and thereby permit us to rescue our compatriots. No such weapon was available, though the scientists were all busy on the problem. A "sleep" gas would have been perfect, but it is lucky that no such gas was known before the invasion, or the slugs could have used it against us. It must be remembered that the slugs theo had as much, or more, of the military potential of the United States at their disposal as had the free men.

Stelemate—with time on their side. There were fools who wanted to H-bomb the cities of the Mississippi Valley out of existence, like curing a lip cancer by cutting off the head, but they were offset by their twins who had not seen slugs, and felt that the whole matter was a tyrannical Washington plot. Tbe second sort grew fewer each day, not because they changed their minds but because the vigilantes were awfully eager.

Then there was the *tertium quid,* the flexible mind, the "reasonable" man—he favored negotiation, claiming we could "do business" with the titans. One such committee, a delegation from the caucus of the opposition party in Congress, actually tried it. Bypassing the State Department, they got in touch with the Governor of Missouri via a linkage rigged across Zone Amber, and were assured of safe conduct and diplomatic immunity—"guarantees" from a titan, but they accepted them. They went to St. Louis and never came back. They sent messages, though. I saw one, a rousing speech adding up to, "Come on in, the water is fine!"

Do steers sign treaties with meat packers?

NORTH America was still the one known center of infection. The only action by the

United Nations, other than placing the space stations at our disposal, was to move to Geneva. It was voted, with twenty-three nations abstaining, to define our plight as "civil disorder" and to urge each member nation to give auch aid as it saw fit to the legitimate governments of the United States, Mexico, and Canada.

It remained a creeping war, silent, with battles lost before we even knew they were joined. Conventional weapons were hardly useful except in policing Zone Amber, now a double no-man's-land from the Canadian forests to the Mexican deserts. It was deserted in the daytime, save for our own patrols.

At night our scouts drew back and the dogs came through—and other things.

Only one atom bomb had been used in the entire war, and that against a Saucer which landed near San Francisco south of Burlingame. Its destruction was according to doctrine, but the doctrine was under criticism; it should have been captured for study. I found my sympathies with those who wanted to shoot first and study later.

By the time the dose of tempus was wearing off, I had a picture of the United States in a shape that I had not imagined even when I was in Kansas City . . . a country undergoing Terror. Friend might shoot friend, wife denounce husband. Rumor of a titan could drum up a mob on any street, with Judge Lynch baying in the van. To rap on a door at night was to invite a blast through the pane. Honest folk stayed home; at night the dogs were out.

The fact that most of the rumored discoveries of slugs were baseless made them no less dangerous. It was not exhibitionism which caused many people to prefer outright nudity to the tight and scanty clothing permitted under Schedule Suntan; even the skimpiest clothing invited a suspicion that might be decided too abruptly. The head - and - spine armor was never worn now; the slugs had faked it and used it almost at once.

And there had been the case of a girl in Seattle. She had been dressed in sandals and a big purse, nothing else. But a vigilante who apparently had developed a nose for the enemy followed her, and noticed that she never moved the purse from her right hand, even when she opened it to make change. She lived, for he burned her arm off at the wrist, and I suppose that she had a new one grafted on; the supply of such spare parts was a glut. The slug was alive, too, when the vigilante opened the purse—but not for long.

The drug had worn off by the time I scanned this incident and I mentioned the matter to the nurse. "Mustn't worry," she told me. "It does no good. Now flex the fingers of your right hand, please."

I flexed them, while she helped the doctor spray on surrogate skin. "Wear gloves for rough work," the doctor cautioned, "and come back next week." I thanked them and went to the operations office. I looked for Mary first, but she was busy in Cosmetics.

XXV

"HANDS all right?" the Old Man asked.

"They'll do. False skin for a week. They do a graft job on my ear tomorrow."

He looked vexed. "There's no time for a graft to heal; Cosmetics will have to fake one."

"The ear doesn't matter," I told him, "but why bother to fake it? Impersonation job?"

"Not exactly. Now that you've been briefed, what do you think of the situation?"

I wondered what answer he was fishing for. "Not good," I conceded. "Everybody watching everybody else. Might as well be in Russia."

"Speaking of Russia, would you say that it was easier to penetrate and maintain surveillance in Russia or in Zone Red? Which would you rather tackle?"

I eyed him suspiciously. "What's the catch? You don't let a man pick his assignment."

"I asked your professional opinion."

"I don't have enough data. Have the slugs infested Russia?"

"That," he answered, "is what I must find out."

I realized suddenly that Mary had been right; agents should not marry. "This time of year," I said, "I think I'd want to enter through Canton. Unless you were figuring on a drop."

"What makes you think I want you to go there?" he asked. "We might find out quicker and easier in Zone Red."

"What? How?"

"Certainly. If there is infection anywhere but in this continent, the titans in Zone Red must know it. Why go half around the globe to find out?"

I put aside the plans I had been forming to be a Hindu merchant, traveling with his wife, and thought about what he was saying.

"How in the devil can Zone Red be penetrated now?" I asked. "Do I wear a plastic imitation slug on my shoulders? They'd catch me the first time I was called on for direct conference."

"Don't be a defeatist. Four agents have gone in already."

"And come back?"

"Well, not exactly."

"Have you decided that I've cluttered up the payroll long enough?"

"I think the others used the wrong tactics—"

"Yeah, I'd say so."

"The trick is to convince them that you are a renegade. Got any ideas?"

The idea was so overwhelming that I did not answer at once. Finally I burst out, "Why not start me easy? Can't I impersonate a Panama pimp for a while? Or practice being an axe murderer? I have to get in the mood for this."

"You've had more experience with their ways than any agent I've got. You must be rested up, aside from that little singe on your fingers. Or maybe we should drop you near Moscow and let you take a direct look. Think it over. Don't get into a fret about it for a day or so."

"Thank you too much." I changed the subject. "What have you got planned for Mary?"

"Why don't you stick to your own business?"

"I'm married to her."

"I know."

"Well, for the love of Pete, don't you even want to wish me luck?"

"It strikes me," he said slowly, "that you have had all the luck one man could ask for. You have my blessing for whatever it's worth."

"Oh." Up to that moment, it had not occurred to me that the Old Man might have had something to do with Mary's leave and mine falling together so conveniently. I said, "Look here, Dad—"

"*Huh?*" It was the second time I had called him that in a month; it put him on the defensive.

"You meant for Mary and me to marry all along. You planned it that way."

"Don't be ridiculous. I believe in free will, son—and free choices. Both of you were entitled to leave. The rest was accidental."

"Accidents don't happen; not around you. Never mind, I'm satisfied with the outcome. Now about the job—give me a bit longer to size up the possibilities. Meantime, I'll see Cosmetics about a rubber ear."

XXVI

WE finally decided not to attempt to penetrate Zone Red. The evaluation group had advised there was no chance of impersonating a renegade; the question hinged on, "How does a man get to be a renegade? Why do the titans trust him?" It answers itself; a slug knows its host's mind. If a titan, through

possessing a man's mind, *knows* that he is a natural renegade, a man who can be had, then it may suit the slug's purposes to let him be renegade rather than host. But first the slug had to plumb the vileness in the man's mind and be sure of its quality.

We concluded this from logical necessity. Human logic, but it had to be slug logic, too, since it fitted what the slugs could and could not do. As for me, it was not possible even under deep hypnotic instruction to pass myself off as a candidate for renegade, or so the psycho lads decided, and to which I said, "Amen!"

It may seem illogical that titans would "free" a host even though they knew that the host was the sort who could be owned. But in the renegades the slugs had a supply of "trustworthy" fifth columnists—"trustworthy" is not the right word, but no language has a word for this form of treachery. That Zone Green was being penetrated by renegades was certain, but it is often hard to tell a fifth columnist from a custard head, which made them hard to catch.

So I got ready. I took under hynosis a refresher in the languages I would need, with emphasis on the latest shibboleth phrases; I was provided with a personality and given a load of money. The reporting equipment was a new model and a joy to have, ultra-microwave stuff hardly larger than a loaf of bread, and the power pack so well shielded that it would not make a Geiger counter even nervous.

I had to drop through their screen, but it would be under a blanket of anti-radar "window" to give their search technicians fits. Once inside I had to make up my mind whether or not the Russian axis was slug-infested, then dictate a report to whatever space station was in sight. In line-of-sight, that is; I can't pick out a space station by eye, and I doubt those who say they can. Report made, I was free to walk, ride, crawl, sneak and/or bribe my way out if I could.

But I never had a chance to use these preparations; the Pass Christian Saucer landed.

IT was only the third to be seen after landing. The Grinnell Saucer had been concealed by the slugs and the Burlingame Saucer was a radioactive memory. But the Pass Christian one was both tracked and seen on the ground.

It was tracked by Space Station Alpha and recorded as an "extremely large meteorite." The mistake was caused by its great speed. The primitive radar of sixty-odd years ago had picked up Saucers many times, especially cruising at atmospheric speeds while scouting this planet. But

our modern radar has been "improved" to the point where Saucers could not be seen; our instruments are too specialized. Traffic block control sees atmospheric traffic only. The defense screen and fire control radars see only what they are supposed to see. The fine screen "sees" a range from atmospheric speeds up to orbiting missiles at five miles a second. The coarse screen overlaps the fine screen, starting down at the lowest missile speed and carrying on up to about ten miles per second.

There are other selectivities, but none of them sees objects at speeds over ten miles per second —with the single exception of space station meteor-count radars, which are not military. Consequently the "giant meteor" was not associated with Flying Saucers until later.

But the Pass Christian Saucer was seen to land. The submersible cruiser U.N.S. *Robert Fulton* on patrol of Zone Red out of Mobile was seven miles off Gulfport with only her receptors showing when the Saucer landed. The spaceship popped up on the screens of the cruiser as it dropped from outer space speed—around fifty-three miles per second, by the space station record —to a speed the cruiser's radars would accept.

It came out of nothing, slowed to zero, and disappeared—but the operator had a fix on the last blip, a few miles away on the Mississippi coast. The cruiser's skipper was puzzled. The track surely could not be a ship; ships don't decelerate at fifty gravities! It did not occur to him that that might not matter to a slug. He swung his ship over and took a look.

His first despatch read: SPACESHIP LANDED BEACH WEST OF PASS CHRISTIAN MISSISSIPPI. His second was: LANDING FORCE BEACHING TO CAPTURE.

If I had not been in the Section offices preparing for my drop, I might have been left out of the party. As it was, my phone shrilled; I bumped my head on the study machine and swore. The Old Man said, "Come at once. *Move!*"

It was the same party we had started with so many weeks—or years?—before, the Old Man, Mary and myself. We were heading south at emergency maximum before the Old Man told us the reason.

When he did, I said, "Why the family group? You need a full-scale air taak force."

"It will be there," he answered grimly. Then he grinned his old wicked grin. "What do you care? The 'Cavanaughs' are riding again. Eh, Mary?"

I snorted. "If you want that sister-and-brother routine, you

had better get another boy."

"Just the part where you protect her from dogs and strange men," he answered soberly. "And I do mean dogs and I do mean very strange men. This may be the payoff, son."

He went into the operator's compartment, closed the panel, and got busy at the communicator. I turned to Mary. She snuggled up and said, "Howdy, Bud."

I grabbed her. "Don't give me that 'Bud' stuff or somebody's going to get a paddling."

WE were almost shot down by our own boys. Then we picked up an escort of two Black Angels who turned us over to the command ship from which Air Marshal Rexton was watching the action. The command ship took us inboard with an anchor loop. I found the maneuver disconcerting.

Rexton wanted to spank us and send us home, but spanking the Old Man is a chore. They finally unloaded us and I squatted our car down on the seawall roadway west of Pass Christian—scared silly, I should add; we were buffeted by A. A. on the way down. There was fighting all around and above us, but there was a curious calm near the Saucer itself.

The outlander ship loomed up almost over us, not fifty yards away. It was as convincing and as ominous as the plastic-board fake in Iowa had been phony. It was a discus of great size, tilted slightly toward us; it had grounded partly on one of the high-stilted old mansions which line that coast. The Saucer was partly supported by the wreckage and by the thick trunk of a tree that had shaded the house.

Its canted attitude let us see the upper surface and what was surely its airlock—a metal hemisphere, a dozen feet across, at its center. This hemisphere was lifted out or up from the body of the ship some six or eight feet. I could not see what held it out, but I assumed that there must be a central shaft or piston; it came out like a poppet valve. It was easy to see why the Saucer had not closed up again and taken off. The airlock was fouled, held open by a "mud turtle," one of those little amphibious tanks that were part of the landing force of the *Fulton*.

Let me place this on record. The tank had been commanded by Ensign Gilbert Calhoun of Knoxville. With him was Powerman 2/c Florence Berzowski and a gunner named Booker T. W. Johnson. They were all dead, of course, before we got there.

The car, as soon as I roaded it, was surrounded by a landing force squad commanded by a

pink-cheeked lad who seemed anxious to shoot somebody, anybody. He was less anxious when he got a look at Mary, but he still refused to let us appoach the Saucer until he had checked with his tactical commander, who in turn consulted the skipper of the *Fulton*. We got an answer back in short time, considering that it was probably referred clear to Washington.

While waiting, I watched the battle and was pleased to have no part of it. Somebody was going to get hurt. A good many had already. There was a male body just behind the car—a boy not more than fourteen. He was still clutching a rocket launcher and across his shoulders was the mark of the beast. I wondered whether the slug had crawled away and was dying, or whether, perhaps, it had managed to transfer to the person who had killed the boy.

Mary had walked west on the highway with the downy young naval officer while I was examining the corpse. The notion of a slug, possibly still alive, being around caused me to hurry to her. "Get back into the car," I said.

She continued to look west along the road. "I thought I might get in a shot or two," she answered, her eyes bright.

"She's safe here," the youngster assured me. "We're holding them, well down the road."

I ignored him. "Listen, you bloodthirsty little hellion," I snapped, "get back in that car before I break every bone in your body!"

"Yes, Sam." She turned and did so.

I looked back at the young salt. "What are you staring at?" I demanded. The place smelled of slugs and the wait was making me nervous.

"Nothing much," he said, looking me over. "In my part of the country we don't speak to ladies that way."

"Then why in hell don't you go back where you come from?" I answered and stalked away. The Old Man was missing, too; I did not like it.

An ambulance, coming back from the west, ground to a halt beside me. "Has the road to Pascagoula been opened?" the driver called out.

The Pascagoula River, thirty miles east of where the Saucer had landed, was roughly "Zone Amber" for that area. The town of that name was east of the river's mouth and in Zone Green, while sixty or seventy miles west of us on the same road was New Orleans, the heaviest concentration of titans south of St. Louis. Our opposition came from New Orleans. Our nearest base was in Mobile.

"I haven't heard," I told the driver.

He chewed a knuckle. "Well, I made it through. Maybe I'll make it back." His turbines whined and he was away. I continued to look for the Old man.

Although the ground fighting had moved from the site, the air fighting was all around us. I was watching vapor trails and trying to figure out who was what and how they could tell, when a big transport streaked into the area, put on the brakes with a burst of rato units, and spilled a platoon of sky boys. Again I wondered; it was too far away to tell whether they wore slugs or not. At least it came in from the east.

I spotted the Old Man talking with the landing force commander. I went up and interrupted. "We ought to get out of here, boss. This place is due to be atom-bombed ten minutes ago."

The commander answered. "Relax. The concentration does not merit even a pony bomb."

I was about to ask him sharply how he knew that the slugs would figure it that way, when the Old Man interrupted. "He's right, son." He took my arm and walked me back toward the car. "He's right, but for the wrong reasons."

"Huh?"

"Why haven't *we* bombed the cities *they* hold? They don't want to damage that ship; they want it back. Get on back to Mary. Dogs and strange men—remember?"

I shut up, unconvinced. I expected us all to be clicks in a Geiger counter any second. Slugs fought with gamecock recklessness, perhaps because they were really not individuals. Why should they be more cautious about one of their ships? They might be more anxious to keep it out of our hands than to save it.

We had just reached the car and spoken to Mary when the still-damp youngster came trotting up. He saluted the Old Man. "The Commander says that you are to have anything you want, sir—anything at all!"

From his manner I gathered that the answering despatch had been spelled out in flaming letters, accompanied by ruffles and flourishes. "Thank you, sir," the Old Man said mildly. "We merely want to inspect the captured ship."

"Yes, sir. Come with me, sir." He came with us instead, having difficulty deciding whether to escort the Old Man or Mary. Mary won. I followed, keeping my mind on watching out and ignoring the presence of the youngster. The country on that coast, unless gardened, is practically jungle; the Saucer lapped over into a brake of that sort and the Old Man took a shortcut through it. The

kid said, "Watch out, sir. Mind where you step."

I said, "Slugs?"

He shook his head. "Coral snakes."

At that point a poisonous snake would have seemed as pleasant as a honey bee, but I must have been paying some attention to his warning for I was looking down when I first heard a shout. Then, so help me, a *Bengal tiger* was charging us!

Probably Mary got in the first shot. Mine was not behind that of the young officer; it might even have been ahead. The Old Man shot last. Between us we cut that beast so many ways that it would never make a rug. And yet the slug on it was untouched; I fried it with my second bolt.

The young fellow looked at it without surprise. "Well," he said, "I thought we had cleaned up that load."

"What do you mean?"

"One of the first transport tanks they sent out. Regular Noah's Ark. We were shooting everything from gorillas to polar bears. Say, did you ever have a water buffalo come at you?"

"No, and I don't want to."

"Not as bad as the dogs, really. If you ask me, those things don't have much sense." He looked at the slug, quite unmoved.

We got out of there fast and onto the titan ship—which did not make me less nervous, but more. Not that there was anything frightening in the appearance of the ship itself, but its appearance wasn't *right*. While it was artificial, one knew without being told that it was not made by men. Why? I don't know. Its surface was dull mirror, not a mark on it—not any sort of mark; there was no way to tell how it had been put together. It was as smooth as a Jo block.

I could not figure what it was made of. Metal? Of course, it *had* to be metal. But was it? You would expect it to be either bitterly cold or possibly intensely hot from its landing. I touched it and it was not anything at all, neither cold nor hot. I noticed another thing presently. A ship that size, landing at high speed, should have blasted a couple of acres. There was no blast area at all; the brake around it was green and rank.

We went up to the parasol business, the airlock, if that is what it was. The edge was jammed down on the little mud turtle; the armor of the tank was crushed in, as one might crush a pasteboard box with the hand. Those mud turtles are built to launch five hundred feet deep in water; they are *strong*.

Well, I suppose this one was strong. The parasol arrangement had damaged it, but the airlock

had not closed. On the other hand the metal, or whatever the spaceship's door was made of, was unmarked by the exchange.

The Old Man turned to me. "Wait here with Mary."

"You're going in there by yourself?"

"Yes. There may be very little time."

The kid spoke up. "I'm to stay with you, sir. That's what the Commander said."

"Very well, sir," the Old Man agreed. "Come along." He peered over the edge, then knelt and lowered himself by his hands. The kid followed him. I felt burned up, but had no desire to argue the arrangements.

Mary turned to me and said, "Sam, I don't like this. I'm afraid."

She startled me. I was afraid myself, but I had not expected her to be. "I'll take care of you."

"Do we have to stay? He didn't actually *say* so."

I considered it. "If you want to go back to the car, I'll take you there."

"Well . . . no, Sam, I guess we have to stay. Come closer to me." She was trembling.

I DON'T know how long it was before they stuck their heads over the rim. The youngster climbed out and the Old Man told him to stand guard. "Come on," he said to us. "It's safe—I think."

"The hell it is," I told him, but I went because Mary was already starting. The Old Man helped her down.

"Mind your head," he said. "Low bridge all the way."

It is a platitude that unhuman races produce unhuman works, but very few humans have ever been inside a Venerian labyrinth and still fewer have seen the Martian ruins—and I was not one of the few. I don't know what I expected.

Superficially, the inside of the Saucer was not, I suppose, too startling, but it was strange. It had been thought out by unhuman brains, ones which had never heard of the right angle and the straight line, or regarded them as unnecessary or undesirable.

We found ourselves in a small oblate chamber, and from there we crawled through a tube about four feet thick, which seemed to wind down into the ship, and glowed from all its surface with a reddish light.

The tube held an odd and somewhat distressing odor, as if of marsh gas, and mixed with it faintly was the reek of dead slugs. That and the reddish glow and the total lack of heat response from the wall of the tube, as my palms pressed against it, gave me the unpleasant fancy that I was

crawling through the gut of some unearthly behemoth, rather than exploring a strange machine.

The tube branched like an artery and there we came across our first Titanian androgyne. He—let me call it "he"—was sprawled on his back, like a child sleeping, his head pillowed on his slug. There was a suggestion of a smile on the little rosebud mouth. I did not realize that he was dead.

At first sight, the similarities between the Titanian people and ourselves are more noticeable than the differences; we impress what we expect to see on what we do see. Take the pretty little "mouth" for example—how was I to know that it was an organ for breathing solely?

But despite the casual similarities of four limbs and a headlike protuberance, we are less alike than a bullfrog and bullpup. Nevertheless the general effect is pleasing and faintly human. "Elfin," I should say—the elves of Saturn's moons.

When I saw the little fellow, I managed to draw my gun. The Old Man turned and said, "Take it easy. It's dead. They are all dead, smothered in oxygen when the tank ruined their air seal."

I still had my gun out. "I want to burn the slug," I insisted. "It may still be alive." It was not covered by the shell we had lately come to expect, but was naked and ugly. Very naked and ugly.

He shrugged. "Suit yourself. It can't possibly hurt you. That slug can't live on an oxygen breather." He crawled across the little body, giving me no chance to shoot had I decided to. Mary had not drawn, but had shrunk against my side and was breathing in sharp, sobbing gasps. The Old Man stopped and said patiently, "Coming, Mary?"

She choked, "Let's get out of here!"

I said, "She's right. This is no job for three people. This is something for a research team and proper equipment."

He paid no attention to me. "It has to be done, Mary. You know that. And you have to be the one to do it."

"Why does she have to do it?" I demanded angrily.

Again he ignored me. "Well, Mary?"

From somewhere inside she called on reserves. Her breathing became normal, her features relaxed, and she crawled across the slug-ridden elfin body with the serenity of a queen going to the gallows. I lumbered after, still hampered by my gun and trying not to touch the corpse.

We came at last to a large chamber which may have been the control room; there were many of the dead little elfin creatures in it. Its inner surface was

cavitated and picked out with lights much brighter than the reddish illumination, and the space was festooned with processes as meaningless to me as the convolutions of a brain. I was troubled again with the thought—completely wrong—that the ship itself was a living organism.

The Old Man paid no mind but crawled through and into another ruddy-glowing tube. We followed its contortions to where it widened out to ten feet or more with a "ceiling" almost tall enough to let us stand erect. But that was not what caught our eyes; the walls were no longer opaque.

On each side of us, beyond transparent membranes, were thousands on thousands of slugs, swimming, floating, writhing in some fluid which sustained them. Each tank had an inner diffuse light of its own that let me see back into the palpitating mass—and I wanted to scream.

I still had my gun out. The Old Man placed his hand over the bell of it. "You don't want to let *that* loose in *here*," he warned me. "Those are for us."

Mary looked at them with a face too calm. I doubt that she was fully conscious in the ordinary sense. I looked at her, glanced back at the walls of that ghoulish aquarium, and said urgently, "Let's get out of here if we can, then just bomb it out of existence. Before it's too late!"

"No," he said quietly, "there is more. Come." The tube narrowed in again, then enlarged, and we were in a somewhat smaller chamber. Again there were transparent walls; again there were things floating beyond them.

I had to look twice before I could believe what I saw.

Floating just beyond the wall, face down, was the body of a man—a human, Earth-born man—about forty to fifty years old. His arms were curved across his chest and his knees were drawn up, as if he were sleeping.

He was not alone; there were more beyond him, male and female, young and old, but he got my attention. I was sure that he was dead; it did not occur to me to think otherwise—then I saw his mouth working—and then I wished he were dead.

MARY was wandering around as if she were drunk. No, not drunk, but preoccupied and dazed. She went from one wall to the other, peering into the crowded, half-seen depths. The Old Man looked only at her. "Well, Mary?" he asked softly.

"I can't find them!" she said piteously in a voice like a little girl's. She ran back to the other side.

The Old Man grasped her arm. "You're not looking for them in

the right place. Go back where they are. Remember?"

Her voice was a wail. *"I can't remember!"*

"You must remember. This is what you can do for them. You must return to where they are and look for them."

Her eyes closed and tears started leaking from them. I pushed myself between them and said, "Stop this! What are you doing to her?"

He pushed me away. "No, son,"



he whispered fiercely. "Keep out of this—you *must* keep out."

"But—"

"No!" He let go of Mary and led me to the entrance. "Stay there. And as you love your wife, as you hate the titans, do not interfere. I shan't hurt her. I promise."

"What are you going to do?" But he had turned away. I stayed, unwilling, yet afraid to tamper with what I did not understand.

Mary had sunk to the floor like a child, face covered with hands. The Old Man knelt down and touched her arm. "Go back," I heard him say. "Back to where it started."

I could barely hear her answer. "No . . . no."

"How old were you? You seemed to be about seven or eight when you were found. It was before that?"

"Yes—yes, it was before that." She sobbed, "Mama! Mama!"

"What is your mama saying?" he asked gently.

"She doesn't say anything. She's looking at me so queerly. There's something on her back. I'm afraid!"



I hurried toward them, crouching to keep from hitting the low ceiling. Without taking his eyes off Mary, the Old Man motioned me back. I stopped, hesitated. "Go back," he ordered. "Way back."

The words were directed at me and I obeyed them—but so did Mary.

"There was a ship," she muttered, "a big, shiny ship—" He said something; if she answered, I could not hear it. I stayed back

this time. Despite my vastly disturbed emotions, I realized that something important was going on, something big enough to absorb the Old Man's full attention in the presence of the enemy.

He continued to talk soothingly but insistently. Mary quieted, seemed to sink into lethargy. After a while she was talking in the monotonous logorrhea of emotional release. Only occasionally did he prompt her.

I heard something crawling along the passage behind me, turned and drew my gun, with a wild feeling that we were trapped. I almost shot him before I recognized the ubiquitous young officer we had left outside. "Come out!" he said urgently. He pushed past me into the chamber and repeated the demand to the Old Man.

The Old Man looked exasperated beyond endurance. "Shut up and don't bother me," he said.

"You've *got* to, sir," the youngster insisted. "The Commander says that you must come out at once. We're falling back; he says he may have to use demolition at any moment. If we are still inside—*blooie!*"

"Very well," the Old Man agreed calmly. "Go tell your commander that he must hold off until we get out; I have vitally important information. Son, help me with Mary."

"Aye aye, sir!" the youngster acknowledged. "But hurry!" He scrambled away. I picked up Mary and carried her to where the chamber narrowed into a tube; she seemed almost unconscious. I put her down.

"Mary," I shouted. "Mary! Can you hear me?"

Her eyes opened. "Yes, Sam?"

"Darling, we've got to get out of here, *fast!* Can you crawl?"

"Yes, Sam." She closed her eyes.

I shook her again. "Mary!"

"Yes, darling? What is it? I'm so tired."

"Listen, Mary, you've got to crawl out of here. If you don't, the sluga will get us. Do you understand?"

"All right, darling." Her eyes stayed open, but were vacant. I got her headed up the tube and came after her. I lifted and dragged her through the chamber of slugs and again through the control room, if that's what it was. When we came to where the tube was partly blocked by the dead elfin creature, she stopped; I wormed past her and stuffed it into the branching tube. There was no doubt, this time, that its slug was dead.

After an endless nightmare of leaden-limbed striving, we reached the outer door. The young officer was there and helped us lift her out, him pulling and the Old

Man and me lifting and pushing. I gave the Old Man a leg up, jumped out myself, and took her away from the youngster.

It was quite dark as we went back past the crushed house, avoiding the brake, and thence down to the road. Our car was no longer there. We were hurried into a "mud turtle" tank—none too soon, for the fighting was almost on top of us. The tank commander buttoned up and the craft lumbered into the water.

Fifteen minutes later we were inside the *Fulton*, and an hour later we disembarked at the Mobile base.

The Old Man and I had had coffee and sandwiches in the wardroom of the *Fulton*. Some of the Wave officers had cared for Mary in the women's quarters. She joined us as we left and seemed normal.

I said, "Mary, are you all right?"

She smiled. "Of course, darling. Why shouldn't I be?"

A command ship and escort took us out of there. I had supposed that we were headed back to the Section offices, or to Washington. The pilot put us into a mountainside hangar in one of those egg-on-a-plate maneuvers that no civilian craft can accomplish—in the sky at high speed, then in a cave and stationary.

"Where are we?" I asked.

The Old Man did not answer. He got out; Mary and I followed. The hangar was small, just parking space for a dozen craft, an arresting platform, and a single launching rack. Guards directed us on back to a door set in living rock; we went through and found ourselves in an anteroom. A loudspeaker told us to strip. I hated to part with my gun and phone.

We went in and were met by a young fellow whose clothing was an armband showing three chevrons and crossed retorts. He turned us over to a girl who was wearing less—only two chevrons. Both of them noticed Mary, each with typical response. I think the corporal was glad to pass us on to the female captain who received us.

"We got your message," the captain said. "Dr. Steelton is waiting."

"Thank you, ma'am," the Old Man answered. "Where?"

"Just a moment," she said, went to Mary and felt through her hair. "We have to be sure," she said apologetically. If she was aware of the falseness of much of Mary's hair, she did not mention it. "All right," she decided, "let's go." Her own hair was cut mannishly short.

"Right," agreed the Old Man. "No, son, this is as far as you go."

"Why?" I asked.

"Because you damn near loused up the first try."

The captain said, "The officers' mess is down the first passageway to the left. Why not wait there?"

So I did. I passed a door decorated primly in red skull and crossbones and stenciled with:

WARNING

LIVE PARASITES BEYOND THIS DOOR

Qualified Personnel Only

Use Procedure A

I gave it a wide berth.

The officers' mess had three or four men and two women lounging in it. I found an unoccupied chair, sat down and wondered who you had to be to get a drink around there. After a time I was joined by a large male extrovert wearing a colonel's insignia on a neck chain.

"Newcomer?" he asked. I admitted it. "Civilian expert?" he went on.

"I don't know about 'expert'," I replied. "I'm a field operative."

"Name? Sorry to be officious," he apologized, "but I'm the security officer around here. My name's Kelly."

I told him mine. He nodded. "Matter of fact I saw you coming in. Now, Mr. Nivens, how about a drink?"

I stood up. "Whom do I have to kill to get it?"

"As far as I can see," Kelly went on later, "this place needs a security officer the way a horse needs rollerskates. We should publish our results as fast as we get them."

I commented that he did not sound like a brass hat. He laughed. "Believe me, son, not all brass hats are as they are pictured. They just seem to be."

I remarked that Air Marshal Rexton struck me as a pretty sharp citizen.

"You know him?" the colonel asked.

"Not exactly, but my work has thrown me in his company a bit. I last saw him earlier today."

"Hmm," said the colonel. "I've never met the gentleman. You move in more rarefied strata than I do, sir."

I explained that it was mere happenstance, but from then on he showed me more respect. Presently he was telling me about the work the laboratory did.

"By now we know more about those foul creatures than does Old Nick himself. But do we know how to kill them without killing their hosts? We do not. I'm no scientist—just a cop under a different tag—but I've talked to the scientists here. This is a biological war. We need a bug, one that will bite the slug and not the host. Doesn't sound too hard, does it? We know a hundred things that

will kill the slug—smallpox, typhus, syphilis, encephalitis lethargica, Obermayer's virus, plague, yellow fever, and so on. But they all kill the host, too."

"Couldn't we use something that everyone is immune to?" I asked. "Everybody has typhoid shots. And almost everybody is vaccinated for smallpox."

"No good. If the host is immune, the parasite doesn't get exposed to it. Now that the slugs have developed this outer cuticle, the parasite's environment is the host. No, we need something the host will catch and that will kill the slug, but won't give the host more than a mild fever."

I started to answer when I saw the Old Man in the doorway. I excused myself and went to him. "What was Kelly grilling you about?" he asked.

"He wasn't grilling me," I answered.

"That's what you think. You know which Kelly that is? B. J. Kelly, the greatest scientific criminologist of our generation."

"*That* Kelly! But he's not in the army."

"Reserve, probably. But you can guess how important this lab is. Come on."

"Where's Mary?"

"You can't see her now. She's recuperating."

"Is she—hurt?"

"I promised you she would not be. Steelton is the best in his line. But we had to go down deep, against great resistance. That's always rough on the subject."

"Did you get what you were after?"

"Yes and no. We aren't through."

"What were you after?"

We had been walking along one of the place's endless underground passageways. Now he turned us into a small office, sat down, touched the desk communicator and said, "Private conference."

"Yes, sir," a voice answered. "We will not record." A green light came on in the ceiling.

"Not that I believe them," the Old Man complained, "but it may keep anyone but Kelly from playing it back. Well, I'll tell you a bit and answer your questions—some of them—in exchange for a solemn promise never to bother your wife with it. You don't have the skill to keep her from going into a wingding."

"Very well, sir. I promise."

"There were a group of people, a cult you might call them, that got into disrepute."

"I know. The Whitmanites."

"Eh? How did you know? From Mary? No, she couldn't have; she didn't know herself."

"Not from Mary. I figured it out."

He looked at me with odd re-

spect. "Maybe I've underestimated you, son. As you say, the Whitmanites. Mary was one, as a kid in Antarctica."

"Wait a minute!" I said. "They left Antarctica in 1974."

"Right."

"But that would make Mary around forty years old!"

"Do you care?"

"Of course not, only she can't be."

"She is and she isn't. Chronologically, her age is about forty. Biologically, she is in her middle twenties. Subjectively, she is even younger, because she doesn't consciously remember anything earlier than about 1990."

"What do you mean? That she doesn't remember, I can understand—she never *wants* to remember. But what do you mean by the rest?"

"What I said. She is no older than she is because—You know that room where she started to remember? She spent ten years or more in suspended animation in just such a tank as that."

XXVIII

AS I get older, I don't get tougher; I get softer. The thought of my beloved Mary swimming in that artificial womb, neither dead nor alive, preserved like a pickled grasshopper, was too much for me.

I heard the Old Man saying, "Take it easy, son. She's all right."

I said, "Go ahead."

Mary's overt history was simple, though mystifying. She had been found in the swamps near Kaiserville at the north pole of Venus—a little girl who could give no account of herself and who knew only her name, Allucquere. Nobody spotted the significance of the name, and a child of her apparent age could not be associated with the Whitmanite debacle in any case; the 1980 supply ship had not been able to find any survivor of their "New Zion" colony. Ten years of time and more than two hundred miles of jungle separated the little waif of Kaiserville from the God-struck colonists of New Zion.

In 1990 an unaccounted-for Earth child on Venus was incredible, but there was no one around with the intellectual curiosity to push the matter. Kaiserville was made up of miners, doxies, company representatives of Two Planets Corporation, and nothing else. Shoveling radioactive mud in the swamps would not leave much energy for wonder.

She grew up using poker chips for toys and calling every woman in crib row "mother" or "auntie." They shortened her name to "Lucky." The Old Man did not

say who paid her way back to Earth; the real questions were where she had been from the time New Zion was eaten up by the jungle, and just what had happened to the colony.

But the only record was buried in Mary's mind, locked tight in terror and despair.

SOMETIME before 1980 — about the time of the Flying Saucer reports from Russo-Siberia—the titans had discovered New Zion colony. If you place it one Saturn year earlier than the invasion of Earth, the chronology fits fairly well. The titans probably were not looking for Earthmen on Venus; more likely they were scouting Venus as they had long scouted Earth. Or they may have known where to look. We know that they kidnapped Earthmen over the course of two or more centuries; they may have captured someone whose brain could tell them where to find New Zion. Mary's dark memories could contain no clue to that.

Mary saw the colony captured, saw her parents turned into zombies who no longer cared for her. Apparently she herself was not possessed, or she may have been possessed and turned loose, the titans finding a weak and ignorant young girl an unsuitable slave. In any case, for what was to her baby mind an endless time, she hung around, unwanted, uncared for, but unmolested, scavenging like a mouse.

The slugs were moving in to stay; their principal slaves were Venerians and the colonists were only incidental. It is sure that Mary saw her parents being placed in suspended animation. For later use in the invasion of Earth? Possible.

In due course she herself was placed in the tanks. Inside a titan ship? At a base on Venus? More probably the latter, for when she woke, she was still on Venus. There are many gaps. Were the slugs that rode the Venerians identical with the slugs which rode the colonists? The slugs seem endlessly adaptable, but they have to adapt themselves to the biochemistry of their hosts. Had Venus an oxy-silicon economy like Mars, or a fluorine economy, the same parasite type could not have fed on both Venerians and Earthmen.

But the gist of the matter lay in the situation as it was when Mary was removed from the artificial incubator. The titan invasion of Venus had failed, or was failing. She was possessed as soon as they removed her from the tank—but Mary had outlived the slug that possessed her.

Why had the slugs died? Why had the invasion of Venus failed? It was for clues to these that the

Old Man and Dr. Steelton had gone fishing in Mary's brain.

I SAID, "Is that all?"

"Isn't that enough?"

"But it raises as many questions as it answers," I complained.

"There is a great deal more," he told me, "only you aren't a Venerian expert or a psychologist. I've told you what I have so that you will know why we have to work on Mary and won't question her about it. Be good to her, boy. She's had more than her share of grief."

I ignored the advice; I can get along or not get along with my own wife without help. "What I can't see is why you had Mary linked up with Flying Saucers in the first place. I realize now that you took her along on that first trip on purpose. You were right—but why? And don't give me any malarkey."

The Old Man looked puzzled. "Son, what is a 'hunch'?"

"A belief that something is so, or isn't so, without evidence."

"I'd call a hunch the result of unconscious reasoning on data you did not know you possessed."

"Don't tell me your unconscious mind works on data you are going to get, but don't have."

"Ah, but I did have data. What's the last thing that happens to a candidate before he is certified as an agent?"

"The personal interview with you."

"No, no!"

"Oh, the trance analysis." I had forgotten hypnoanalysis for the simple reason that the subject never remembers it. "You mean you had this data on Mary then. It wasn't a hunch at all."

"No again. I had a very little of it—Mary's defenses are strong. But I knew that Mary was the agent for this job. Later I played back her hypno interview; then I *knew* that there must be more. We tried for it and did not get it. But I knew that there had to be more."

I thought it over. "You sure put her over the bumps to get it."

"I had to. I'm sorry."

"Okay, okay." I waited a moment, then said, "Look, what was there in *my* hypno record?"

"I had my deputy play it. He said there wasn't anything I needed to know, so I never played it."

"Well—thanks."

He merely grunted.

XXIX

THE slugs had died from something they contracted on Venus; that much we thought we knew. We weren't likely to get another chance in a hurry to collect direct information, for a despatch came in while the Old Man and I were talking, saying that

the Pass Christian Saucer had been bombed to keep it from being recaptured. The Old Man had hoped to get at those human prisoners in that ship, revive and question them.

That chance was gone. What they could dig out of Mary had better be the answer. If some infection peculiar to Venus was fatal to slugs but not fatal to humans — at least, Mary had lived through it—then the next step was to test them all and determine which one. Just dandy! The list of diseases native to Venus which are not fatal but merely nastily annoying is very long—from the standpoint of a Venerian bug, we must be too strange a diet.

The problem was made harder by the fact that diseases native to Venus which were represented by cultures on Earth were strictly limited in number. Such an omission could be repaired—in a century or so of exploration and research on a strange planet.

In the meantime, there was a breath of frost in the air; Schedule Suntan could not go on forever.

The psych boys had to go back where they hoped the answer was, in Mary's brain. I did not like it, but I could not stop it. She did not appear to know why she was being asked to submit, over and over again, to hypnotics. Though she seemed serene, the strain showed—circles under her eyes, tremor, inattentiveness. Finally I told the Old Man that it had to stop.

"You know better than that, son," he said.

"The hell I do! If you haven't gotten what you want by now, you'll never get it."

"If we don't succeed," he answered gently, "you'll wish to heaven that she had. Or do you want to raise kids to be hosts to titans?"

I chewed my lip. "Why didn't you send me to Russia, instead of keeping me here?"

"Oh, that—I want you here, with Mary, keeping her morale up, instead of acting like a spoiled brat. In the second place, it isn't necessary."

"Huh? What happened? Some other agent report in?"

"If you would ever show a grown-up interest in the news, you would know."

I hurried out and brought myself up to date. This time I had managed to miss the first news of the only continentwide epidemic of Black Death since the 17th Century.

I could not understand it. Russian public health measures were fairly good; they were carried out "by the numbers" and no nonsense tolerated. A country has to be literally lousy to spread plagues—rats, lice, and fleas, the

historical vectors. The Russian bureaucrats had even cleaned up China to the point where bubonic plague and typhus were localized.

Now both plagues were spreading across the whole Sino-Russo-Siberian axis, to the point where the government had broken down and pleas were being sent out for U. N. help. What had happened?

I put the pieces together and looked up the Old Man again. "Boss, there *were* slugs in Russia."

"Yes."

"You know? Well, for cripes sake, we'd better move fast, or the whole Mississippi Valley will be in the shape that Asia is in. Just one little rat—" The titans did not bother about human sanitation. I doubted if there had been a bath taken between the Canadian border and New Orleans since the slugs dropped the masquerade. Lice, fleas—

The Old Man sighed. "Maybe that's the solution."

"You might as well bomb them, if that's the best we have to offer. It's a cleaner way to die."

"So it is. But you know we won't. As long as there is a chance we'll keep on trying."

I mulled it over at length. We were in still another race against time. Fundamentally, the slugs must be too stupid to keep slaves; perhaps that was why they moved from planet to planet — they spoiled what they touched. After a while their hosts would die and then they needed new hosts.

Theory, just theory. One thing was sure: Zone Red would be plague-ridden unless we found a way to kill the slugs, and that mighty soon! I made up my mind to do something I had considered before—force myself into the mind-searching sessions. If there were something in Mary's hidden memories which could be used to kill slugs, I might see it where others had failed. In any case I was going in, whether Steelton and the Old Man liked it or not. I was tired of being treated like a cross between a prince consort and an unwelcome child.

XXX

MARY and I had been living in a cubicle intended for one officer; we were as crowded as a plate of smorgasbord, but we did not care. I woke up first the next morning and made my usual quick check to be sure that a slug had not gotten to her. While I was doing so, she opened her eyes and smiled drowsily.

"Go back to sleep," I said.

"I'm awake now."

"Mary, do you know the incubation period for bubonic plague?"

She answered, "*Should* I know? Why, one of your eyes is slightly

darker than the other. I never noticed before."

I shook her. "Pay attention, wench. I was in the lab library last night, doing some figuring. As I get it, the slugs must have moved in on the Russians at least three months before they invaded us."

"Yes, of course."

"You know? Why didn't you say so?"

"Nobody asked me."

"Oh, for heaven's sake! Let's get up; I'm hungry." Before we left, I said, "Guessing games at the usual time?"

"Yes."

"Mary, you never talk about what they ask you."

She looked surprised. "But I never know."

"That's what I gathered. Deep trance with a 'forgetter' order, eh?"

"I suppose so."

"Hmm. Well, there'll be some changes made. Today I am going with you."

All she said was, "Yes, dear."

They were gathered as usual in Dr. Steelton's office, the Old Man, Steelton himself, a Colonel Gibsy who was chief of staff, a lieutenant colonel, and an odd lot of sergeant-technicians, J.O.s and flunkies. In the army it takes an eight-man working party to help a brasshat blow his nose. The Old Man's eyebrows shot up when he saw me, but he said nothing.

A sergeant tried to stop me. "Good morning, Mrs. Nivens," he said to Mary, then told me, "I don't have you on the list."

"I'm putting myself on the list," I announced, and pushed on past him.

Colonel Gibsy glared and turned to the Old Man with a "Hrrumph - what's - all - this?" noise. The rest looked frozen-faced, except one Wac sergeant who could not keep from grinning.

The Old Man said to Gibsy. "Just a moment, Colonel," and limped over to me. In a voice that reached me alone, he said. "Son, you promised me."

"And I withdraw it. You had no business exacting a promise like that."

"You've no business here, son. You are not skilled in these matters. For Mary's sake, get out."

"You are the one with no business here. You are not an analyst. You get out."

The Old Man glanced at Mary. Nothing showed in her face. The Old Man said slowly, "You been eating raw meat, son?"

I answered, "It's my wife who is being experimented on. From here on, I make the rules."

Colonel Gibsy butted in. "Young man, are you out of your mind?"

I glanced at his hands. "That's a V.M.I. ring, isn't it? Have you any other qualifications? Are you an M. D.? A psychologist?"

He drew himself up. "You seem to forget that this is a military reservation."

"You forget that my wife and I aren't military personnel!" I added, "Come, Mary. We're leaving."

"Yes, Sam."

I said to the Old Man, "I'll tell the offices where to send our mail." I started for the door with Mary following.

The Old Man said, "Just a moment." I stopped and he asked Gibsy, "Colonel, will you step outside with me? I'd like a word in private."

Colonel Gibsy gave me a general-court-martial look, but he went. We all waited. The juniors continued to be poker-faced, the lieutenant colonel looked perturbed, and the Wac sergeant seemed about to burst. Steelton was the only one who appeared unconcerned. He took papers out of his "incoming" basket and went quietly to work.

Ten or fifteen minutes later a sergeant came in. "Dr. Steelton, the Commanding Officer says to go ahead."

"Very well, Sergeant," he acknowledged, then looked at me and said, "Let's go into the operating room."

I said, "Not so fast. Who are these others? How about him?" I indicated the lieutenant colonel.

"Eh? He's Dr. Hazelhurst. Two years on Venus."

"Okay, he stays." I caught the eye of the sergeant with the grin and said, "What's your job, sister?"

"I'm sort of chaperone."

"I'm taking over the chaperone business. Now, Doctor, suppose you sort out the spare wheels from the people you actually need."

"Certainly, sir." It turned out that he really wanted no one but Colonel Hazelhurst. We went inside—Mary, myself, and the two specialists.

The operating room contained a psychiatrist's couch surrounded by chairs. The double snout of a tri-dimensional camera poked out of the overhead. Mary went to the couch and lay down.

Dr. Steelton got out an injector. "We'll try to pick up where we left off, Mrs. Nivens."

I said, "Just a moment. You have records of the earlier attempts?"

"Of course."

"Let's play them over first. I want to come up to date."

He hesitated, then answered, "If you wish. Mrs. Nivens, I suggest that you wait in my office."

It was probably the contrary

mood that I was in: bucking the Old Man had gotten me hiked up.

"Let's find out first if she *wants* to leave."

Steelton looked surprised. "You don't know what you are suggesting. These records would be emotionally disturbing to your wife."

"Very questionable therapy," Hazelhurst put in.

I said, "This isn't therapy and you know it. If therapy had been your object, you would have used eidetic recall techniques instead of drugs."

"There was no time. We had to use rough methods for quick results. I'm not sure that I can authorize the subject to see the records."

I exploded. "Damn it, nobody asked you and you haven't got any authority in the matter. Those records were snitched out of my wife's head and they belong to *her*. She'll make up her own mind. Now ask her!"

Steelton said, "Mrs. Nivens, do you wish to see your records?"

Mary answered, "Yes, Doctor, I'd like to very much."

He seemed astonished. "Do you wish to see them by yourself?"

"With my husband. You and Dr. Hazelhurst are welcome to remain."

They did. A stack of tape spools were brought in, each labeled with attributed dates and ages. It would have taken hours to go through them all, so I discarded those which concerned Mary's life after 1991; they could hardly affect the problem.

We began with her very early life. Each record started with the subject, Mary, choking and groaning and struggling the way people always do when they are being forced back on a memory track which they would rather not follow. Then would come the reconstruction, both in her voice and in others. What surprised me most was Mary's face—in the tank, I mean. We had the magnification stepped up so that the stereo image was practically in our laps and one could follow every expression.

First her face became that of a little girl—oh, her features were the same grown-up ones, but I knew that I was seeing my darling as she must have been when she was very small. It made me hope that we would have a little girl ourselves.

Then her expression would change to match when other actors out of her memory took over. It was like watching an incredibly able monologist playing many parts.

Mary took it calmly, but her hand stole into mine. When we came to the terrible part where her parents changed, became slaves of slugs, she clamped down

hard on my fingers. But she controlled herself.

I skipped over the spools marked "period of suspended animation" and proceeded to the group concerned with the time from her resuscitation to the group concerned with her rescue from the swamps.

One thing was certain: she had been possessed by a slug as soon as she was revived. The dead expression was that of a slug not bothering to keep up a masquerade; the stereocasts from Zone Red were full of that look. The barrenness of her memories from that period confirmed it.

Then, rather suddenly, she was no longer hag-ridden, but was again a little girl, very sick and frightened. There was a delirious quality to her remembered thoughts, until, at the last, a new voice came out loud and clear: "Well, skin me alive! Look, Pete, it's a little girl!"

That tape carried on into Kaiserville, her recovery from starvation and exposure, and many new voices and memories; presently it ended.

"I suggest," Dr. Steelton said as he took the tape out of the projector, "that we play another of the same period. They are all slightly different and this period is the key to the whole matter."

"Why, Doctor?" Mary asked.

"If we could tell what killed the titan which, uh, possessed you before you were found—what killed it and left you alive—we might have the weapon we need."

"But don't you *know?*" Mary asked wonderingly.

"Not yet, but we'll get it. The human memory is an amazingly complete record."

"I thought you knew. It was nine-day fever."

"*What?*" Hazelhurst bounced out of his chair.

"Couldn't you tell from my face? It was characteristic—the mask, I mean. I used to nurse it back ho—back in Kaiserville, because I had had it once and was immune."

Steelton said, "How about it, Doctor? Have you ever seen a case of it?"

"By the time of the second expedition, they had the vaccine. I'm acquainted with its clinical characteristics, however."

"But can't you tell from this record?"

"Well," Hazelhurst answered carefully, "I would say that what we have seen is consistent with it, but not conclusive."

"What's not conclusive?" Mary said sharply. "I told you it was nine-day fever."

"We must be sure," Steelton said apologetically.

"How sure can you get? There is no question about it. I was told that I had been sick with

it when Pete and Frisco found me. I nursed other cases later and I never caught it. I remember their faces when they were ready to die—just like my own face in the record. Anyone who has ever seen a case could not possibly mistake it for anything else. What more do you want?"

I have never seen Mary so close to losing her temper—except once. I said to myself: *look out, gentlemen, better duck!*

Steelton said, "I think you have proved your point, but tell me: You were believed to have no conscious memory of this period and my own examination of you confirmed it. Now you speak as if you had."

Mary looked puzzled. "I remember it now, quite clearly. I haven't thought about it in many years."

"I think I understand." He turned to Hazelhurst. "Well, Doctor, do we have a culture of the disease? Have your boys done any work on it?"

Hazelhurst seemed stunned. "Work on it? Of course not! It's out of the question — nine-day fever! We might as well use polio or typhus. I'd rather treat a hangnail with an ax!"

I touched Mary's arm. "Let's go, darling. I think we have done all the damage we can." She was trembling and her eyes were full of tears. I took her into the messroom for systemic treatment—distilled.

AFTER bedding Mary down for a nap, I looked up my father in the office they had assigned him.

He looked at me speculatively. "Well, Elihu, I hear you hit the jackpot."

"I prefer to be called Sam," I answered.

"Very well, Sam. Success is its own excuse; nevertheless, the jackpot appears to be disappointingly small. Nine-day fever—no wonder the colony died out and the sluga as well. I don't see how we can use it. We can't expect everyone to have Mary's remarkable resistance."

He was right, of course. The fever carried a 98%-plus death rate among unprotected Earthmen. With those who had taken the shots, the rate was an effective zero—but that would be true of the slugs, too.

"I can't see that it matters," I pointed out. "It's odds-on that you will have typhus or plague —or both—throughout the Mississippi Valley in the next six weeks."

"Or the slugs may have learned a lesson in Asia and will start taking drastic sanitary measures." The idea startled me so that I almost missed the next thing he said, which was: "No, Sam, you'll

have to devise a better plan."

"*I'll* have to? I just work here."

"You did once. Now you've taken charge of this job."

"What the devil are you talking about? I'm not in charge of anything and don't want to be. You are the boss."

He shook his head. "A boss is the man who does the bossing. Titles and insignia come later. Tell me, do you think Oldfield could ever replace me?"

I shook my head; Dad's chief deputy was the executive officer type, a "carry-outer," not a "think-upper." "I've never promoted you," he went on, "because I knew that when the time came you would promote yourself. Now you've done it—by bucking my judgment, forcing your own on me, and by being right."

"Rats! I got bull-headed and forced one issue. It never occurred to you big brains that you weren't consulting the one real Venus expert you had on tap—Mary. But I didn't expect to find out anything; I had a lucky break."

He shook his head. "Luck is a tag given by the mediocre to excuse for their mediocrity."

I placed my hands on the desk and leaned toward him. "Okay, so I'm a genius—but you are not going to make me hold the sack. When this is over, Mary and I are going up in the mountains and raise kittens and kids. I don't intend to boss screwball agents."

He smiled gently and didn't answer.

"I don't *want* your job. Understand me?"

"Don't take it so hard, Sam. I'll keep the title for the present. In the meantime, what are your plans—sir?"

XXXI

THE worst of it was that he meant it. I tried to go limp on him, but it didn't work. A top-level conference was called that afternoon; I was notified, but stayed away. Shortly a polite little Wac came to tell me that the commanding officer was waiting and would I please come at once?

So I went—and tried to stay out of the discussion. But my father has a way of conducting a meeting, even if he is not in the chair, by looking expectantly at the one he wants to hear from. It's a subtle trick; the group does not know that it is being led.

But *I* knew. With every eye in the room on you, it is easier to voice an opinion than to keep quiet. Particularly when I found that I had opinions.

There was much moaning and groaning about the impossibility of using nine-day fever. Admitted that it would kill slugs, but it

would even kill Venerians who can be chopped in two and survive, and it was sure death to almost any human. Seven to ten days after exposure—curtains.

"Yes, Mr. Nivens?" It was the commanding general, addressing me. I hadn't said anything, but Dad's eyes were on me, waiting.

"I think there has been a lot of despair voiced at this session," I said, "and a lot of opinions given that were based on assumptions. The assumptions may not be correct."

"How so?"

I did not have an instance in mind; I had been shooting from the hip. "Well, I hear constant reference to nine-day fever as if the nine-day part were an absolute fact. It's not."

The boss brass shrugged impatiently. "It's a convenient tag. It averages nine days."

"Yes, but how do you know it lasts nine days—*for a slug?*"

By the murmur with which it was received, I knew that I had hit the jackpot again.

I was invited to explain why I thought the fever might run a different time in slugs and why it mattered. I bulled on ahead.

"In the only case we knew about, the slug did die in less than nine days—a lot less. Those of you who have seen the records on my wife—and I gather that entirely too many of you have—are aware that her parasite left her, presumably dropped off and died, long before the eighth-day crisis. If experiments confirm this, then the problem is different. A man infected with the fever might be rid of his slug in—oh, call it four days. That gives you five days to catch and cure him."

The general whistled silently. "That's a pretty heroic solution, Mr. Nivens. How do you propose to cure him? Or even catch him? I mean to say, suppose we plant an epidemic in Zone Red, it would take incredibly fast footwork—in the face of stubborn resistance, remember—to locate and treat more than fifty million people before they died."

I slung the hot potato right back, wondering how many "experts" had made their names by passing the buck. "The second question is a logistical and tactical problem—*your* problem. As to the first, there is your expert." I pointed to Dr. Hazelhurst.

Hazelhurst huffed and puffed and I knew how he felt. More research needed . . . experiments would be required . . . work had been done toward an antitoxin, but the vaccine for immunizing had proven so successful that he was not sure the antitoxin had ever been perfected. He concluded lamely by saying that the study of the exotic diseases of Venus was still in its infancy.

The general interrupted him. "This antitoxin business — how soon can you find out about it?"

Hazelhurst said that there was a man at the Sorbonne he wanted to phone.

"Do so," his commanding officer said. "You are excused."

HAZELHURST came buzzing at our door before breakfast the next morning. I stepped out into the passage to see him. "Sorry to wake you," he said, "but you were right about that antitoxin matter."

"I was?"

"They are sending me some from Paris; it should arrive any minute. I do hope it's still potent."

"And if it isn't?"

"Well, we have the means to make it. We'll have to, of course, if this wild scheme is used—millions of units of it."

"Thanks for telling me," I said. I started to turn away; he stopped me.

"Uh, Mr. Nivens, about the matter of vectors—"

"Vectors?"

"Disease vectors. We can't use rats or mice or anything like that. Do you know how the fever is transmitted on Venus? By a little flying rotifer, the Venerian equivalent of an insect. But we don't have any and that is the *only* way it can be carried."

"Do you mean to say you couldn't give it to me if you tried?"

"Oh, yes, I could inject you. But I can't picture a million paratroopers dropping into Zone Red and asking the parasite-ridden population to hold still while they gave them injections."

Something started turning over slowly in my brain . . . a million men in a single drop. "Why ask me?" I said. "It's a medical problem."

"Of course. I just thought—Well, you seemed to have a ready grasp—" He paused.

"Thanks." My mind was struggling with two problems at once and having traffic trouble. How many people were there in Zone Red? "Let me get this straight. Suppose you had the fever. I couldn't catch it from you?" The drop could not be medical men; there weren't that many.

"Not easily. From a smear or a trace transfusion from my veins to yours."

"Direct contact, eh?" How many people could one paratrooper service? Twenty? Thirty? More? "If that is what it takes, you don't have any problem."

"I'm sorry. I don't—"

"What'a the first thing a slug does when he runs across another he hasn't seen lately"

"*Conjugation!*"

"Direct conference, I've always

called it, but I use the sloppy old slug language for it. Do you think that would pass on the disease?"

"*Think* so? I'm *sure* of it! We have demonstrated, right in this laboratory, that there is exchange of living protein during conjugation. They could not possibly escape transmission; we can infect the whole colony as if it were one body. Now why didn't *I* think of that?"

"Don't go off half-cocked," I warned. "But I suspect it will work."

"It will! It will!" He started to go, then stopped. "Oh, Mr. Nivens, would you mind very much —I know it's a lot to ask—"

"What is? Speak up." I was anxious to work out the rest of the other problem.

"Well, would you permit me to announce this method of vectoring? I'll give you full credit, but the general expects a lot and this is just what I need to make my report complete." He looked so anxious that I almost laughed.

"Go ahead," I said. "It's your department."

"That's decent of you. I'll try to return the favor." He went away happy and so was I; I was beginning to like being a "genius."

I stopped to straighten out in my mind the main features of the big drop. Then I went in. Mary opened her eyes and gave me that long heavenly smile.

I reached down and smoothed her hair. "Howdy, flame top. Did you know that your husband is a genius?"

"Of course."

"You did? You never said so."

"You never asked me."

HAZELHURST referred to it as the "Nivens Vector." Then I was asked to comment, though Dad looked my way first.

"I agree with Dr. Hazelhurst," I started out, "subject to experimental confirmation. However, he has left for discussion aspects which are tactical rather than medical. Important considerations of timing—crucial, I should say—" I had worked out my opening speech, even to the hesitations, while eating breakfast— "require vectoring from many focal points. If we are to save a nominal hundred per cent of the population of Zone Red, it is necessary that all parasites be infected at nearly the same time in order that rescue squads may enter *after* the slugs are no longer dangerous and *before* any host has passed the point where antitoxin can save him.

"The problem is susceptible to mathematical analysis—" *Sam, boy*, I said to myself, *you old phony, you could not solve it with an electronic integrator and twenty years of sweat* — "and should be turned over to your

analytical section. However, let me sketch out the factors. Call the number of vector origins X; call the number of rescue workers Y. There will be an indefinitely large number of simultaneous solutions, with optimum solution depending on logistic factors.

"Speaking in advance of rigorous mathematical treatment—" I had done my damnedest with a slipstick, but I did not mention that—"and basing my opinions on my own unfortunately too-intimate knowledge of their habits, I would estimate—"

You could have heard a pin drop, if anybody in that bare-skinned crew had had a pin. The general interrupted once when I placed a low estimate on X, "Mr. Nivens, I think we can assure you of any number of volunteers for vectoring."

I shook my head.

"You can't accept volunteers, General."

"I think I see your objection. The disease would have to be given time to establish in the volunteer and the timing might be dangerously close. But I think we could get around that—a gelatine capsule of antitoxin embedded in tissue, or something of the sort. I'm sure the staff could work it out."

I thought they could, too, but my real objection was a deep-rooted aversion to any human soul having to be possessed by a slug. "You must *not* use human volunteers, General. The slug will know everything that his host knows and he simply will not go into direct conference; he'll warn the others by word of mouth instead. No, sir, we will use animals — apes, dogs, anything large enough to carry a slug, but incapable of speech, and in quantities large enough to infect the whole group before any slug knows that it is sick."

I gave a fast sketch of the final drop, "Schedule Mercy," as I saw it. "The first drop—'Schedule Fever'—can start as soon as we have enough antitoxin for the second drop. Less than a week after, there should be no slug left alive on this continent."

They did not applaud, but it felt that way. The General hurried away to call Air Marshall Rexton, then sent his aide back to invite me to lunch. I sent word that I would be pleased provided the invitation included my wife.

Dad waited for me outside the conference room. "Well, how did I do?" I asked him, more anxiously than I tried to sound.

He shook his head. "Sam, you wowed 'em. I think I'll sign you up for twenty-six weeks of stereo."

I tried not to show how much I was pleased. I had gotten through the whole performance

without once stammering; I *felt* like a genius.

XXXII

THAT ape Satan which had wrung my heart at the National Zoo turned out to be as mean as he was billed, once he was free of his slug. Dad had volunteered to be the test case for the Nivens-Hazelhurst theories, but I put my foot down and Satan drew the short straw. It was neither filial affection nor its neo-Freudian antithesis that caused me to balk him; I did not want him on their side even under laboratory conditions. Not with his shifty, tricky mind! People who have never experienced possession cannot appreciate that the host is utterly against us—with *all* his abilities intact.

So we used apes for the experiments. We had on hand not only apes from the National Zoological Gardens, but simian citizens from half a dozen zoos and circuses.

Satan was injected with nine-day fever on Wednesday, the 12th. By Friday the fever had established. Another chimp-*cum*-slug was put in with him. The slugs immediately went into di-



rect conference, after which the second ape was removed.

On Sunday, the 16th, Satan's master shriveled up and fell off. Satan was immediately injected with antitoxin. Late Monday the other slug died and its host was dosed.

By Wednesday, the 19th, Satan was well, though a bit thin, and the second ape, Lord Fauntleroy, was recovering. I gave Satan a banana to celebrate with and he took off the first joint of my left index finger and me with no time for a repair job.

But a minor injury could not depress me. After I had it dressed, I looked for Mary, failed to find her and ended up in the mess-room, wanting someone with whom to share a toast.

The place was empty. Everyone in the labs was working, mounting "Schedule Mercy." By order of the President, all possible preparations were confined to this one lab in the Smoky Mountains. The apes for vectoring, some two hundred of them, were here. The culture and antitoxin were being "cooked" here. The horses for serum were stalled in an underground handball court.

The million - plus men for "Schedule Mercy" could not be here, but they would know nothing until alerted just before the drop, at which time each would be issued a hand gun and bandoliers of individual antitoxin injectors. Those who were unwilling would be pushed, if necessary, by some sergeant with a large foot. Everything was being done to keep the secret close. The only way I could see that we could lose would be for the titans to find out our plans, through a renegade or some fool telling his wife.

If we failed to keep this secret, our ape vectors would be shot on sight wherever they appeared in the titan nation. Nevertheless I relaxed over my drink, happy and reasonably sure that the secret would not leak. Traffic was "incoming only" until after Drop Day and Colonel Kelly censored or monitored all communication outward.

As for a leak outside, the chances were slight. The General, Dad, Colonel Gibsy, and myself had gone to the White House the week before. There Dad put on an exhibition of belligerence and exasperation that got us what we wanted; in the end, even Secretary Martinez was kept in the dark. If the President and Rexton could keep from talking in their sleep for another week, I did not see how we could miss.

A week would be none too soon: Zone Red was spreading. After the battle of Pass Christian, the slugs had pushed on and now held the Gulf Coast past Pensa-

cola. There were signs of more to come. Perhaps the slugs were growing tired of our resistance and might decide to waste raw material by A-bombing the cities we still held. If so—well, a radar screen can alert your defenses, but it won't stop a determined attack.

I refused to worry. One more week—

COLONEL Kelly came in and sat down beside me. "How about a drink?" I suggested. "I feel like celebrating."

He examined the paunch bulging in front of him and said, "I suppose one more beer wouldn't put me in any worse shape."

"Have two beers. Have a dozen." I dialed for him, and told him about the success of the experiments with the apes.

He nodded. "Yes, I had heard. Sounds good."

"*Good,* the man says! Colonel, we are on the one-yard line and goal to go. A week from now we'll have won."

"Well?"

"Then you'll be able to put your clothes back on and lead a normal life," I answered, irritated. "Or don't you think our plans will work?"

"Yes, I think they will."

"Then why the crepe-hanging?"

He said, "Mr. Nivens, you don't think that a man with my pot belly enjoys running around without his clothes, do you?"

"I suppose not. As for myself, I may hate to give it up—saves time and it's a hell of a lot more comfortable."

"Don't worry about it. This is a permanent change."

"Huh? I don't get you. You said our plans would work and now you talk as if Schedule Suntan would go on forever."

"In a modified way, it definitely will."

I said, "Pardon me, I'm stupid today."

He dialed for another beer. "Mr. Nivens, I never expected to see a military reservation turned into a ruddy nudist camp. Having seen it, I never expect to see us change back, because we *can't.* Pandora's box has a one-way lid. All the king's horses and all the king's men—"

"Conceded," I said. "Things never go back quite to what they were before. But you are exaggerating. The day the President rescinds Schedule Suntan, the blue laws will go back into effect and a man without pants will be liable to arrest."

"I hope not."

"What? Make up your mind."

"It's made up for me, Mr. Nivens, as long as there exists a possibility that a slug is alive, the polite man must be willing

to bare his body on request, or risk getting shot. Not just this week and next, but twenty years from now, or a hundred. No, no!" he added, "I am not disparaging your plans, but you have been too busy to notice that they are strictly local and temporary. For example, have you made any provision for combing the Amazonian jungles, tree by tree? This globe has nearly sixty million square miles of land; we can't *begin* to search it for slugs. Hell, we haven't even made a dent in rats and we've been at that a long time."

"Are you trying to tell me it's hopeless?" I demanded.

"Not at all. Have another drink. I'm trying to say that we are going to have to learn to *live* with this horror, the way we had to learn to live with the atom bomb."

XXXIII

WE were gathered in the same room in the White House; it put me in mind of the night after the President's message, many weeks before. Dad and Mary, Rexton and Martinez were there, as well as our own lab general, Dr. Hazelhurst, and Colonel Gibsy. Our eyes were on the big map still mounted across one wall. It had been four and a half days since the drop of "Schedule Fever," but the Mississippi Valley still glowed with ruby lights.

I was getting jittery, even though the drop had been an apparent success and we had lost only three craft. According to the equations, every slug within reach of direct conference should have been infected three days ago, with an estimated twenty-three per cent overlap. The operation had been computed to contact about eighty per cent in the first twelve hours, mostly in cities.

Soon, slugs should start dying a damn sight faster than flies ever did—*if* we were right.

I tried to sit still while I wondered whether those ruby lights covered a few million very sick slugs, or merely two hundred dead apes. Had somebody skipped a decimal point? Or blabbed? Or had there been an error in our reasoning so colossal that we could not see it?

Suddenly a light blinked green; everybody sat up. A voice began to come out of the stereo gear, though no picture built up. "This is Station Dixie, Little Rock," a very tired Southern voice said. "We need help very badly. Anyone who is listening, please pass on this message: Little Rock, Arkansas, is in the grip of a terrible epidemic. Notify the Red Cross. We have been in the hands

of—" The voice trailed off, either from weakness or transmission failure.

I remembered to breathe. Mary patted my hand and I sat back, relaxing consciously. It was joy too great to be pleasure. I saw now that the green light had not been Little Rock, but farther west in Oklahoma. Two more lights blinked green, one in Nebraska and one north of the Canadian line. Another voice came over, a twangy New England one. I wondered how he had gotten into Zone Red.

"A little like election night, eh, Chief?" Martinez said heartily.

"A little," the President agreed, "but we do not usually get returns from Old Mexico." He pointed to the board; green lights were showing in Chihuahua.

"By George, you're right. Well, I guess State will have some incidents to straighten out when this is over, eh?"

The President did not answer and he shut up, to my relief. The President seemed to be talking to himself. He noticed me, smiled and spoke out loud:

"'Tis said that fleas have little fleas,
Upon their backs to bite 'em,
And little fleas have lesser fleas,
And so, ad infinitum.'"

I smiled to be polite, though I thought the notion was gruesome, under the circumstances. The President looked away and said, "Would anyone like supper? I find that I am hungry for the first time in days."

BY late next afternoon, the board was more green than red. Rexton had had two annunciators keyed into the command center in the New Pentagon. One showed percentage of completion of the complicated score deemed necessary before the big drop; the other showed projected time of drop. The figures on it changed from time to time. For the past two hours they had been hovering around 17.43 East Coast time.

Rexton got up. "I'm going to freeze it at seventeen-forty-five," he announced. "Mr. President, will you excuse me?"

"Certainly, Marshal."

Rexton turned to Dad and myself. "If you Don Quixotes want to drop in on Zone Red, now is the time."

I stood up. "Mary, you wait for me."

She asked, "Where?" It had been settled—and not peacefully!—that she was not to go along.

The President interrupted. "I suggest that Mrs. Nivens stay here. After all, she is a member of the family."

I said, "Thank you, sir." Colonel Gibsy got a very odd look.

Two hours later we were coming in on our target and the jump door was open. Dad and I were last in line, after the kids who would do the real work. My hands were sweaty with the old curtain-going-up tension. I was scared as hell—I never did like to jump.

XXXIV

GUN in my left hand, antitoxin hypo ready in my right, I went from door to door in my assigned block. It was an older section of Jefferson City, slums almost, consisting of apartment houses built fifty years ago. I had given two dozen injections and had three dozen to go before it would be time for me to rendezvous at the State House. I was getting sick of it.

I knew why I had come—it was not just curiosity; I had to see the slugs *die!* But now I had seen them dead and I had had enough of it.

I wanted to go home, take a bath, and forget it.

It was not hard work, just monotonous and nauseating. So far I had not seen one live slug, though I had seen many dead ones. I had burned down one skulking dog that appeared to have a hump; I was not sure because the light had been bad. We had hit shortly before sundown and now it was almost dark.

I finished checking the apartment building I was in and went out into the street. It was almost deserted; with the whole population sick with the fever, we found few on the streets. The lone exception was a man who came weaving toward me, eyes vacant. I yelled, "Hey!"

He stopped. I said, "I've got what you need to get well. Hold out your arm."

He struck at me feebly. I hit him carefully and he went face down. Across his back was the red rash of the slug. I picked a reasonably clean and healthy patch over his kidney and stuck in the injector, bending it to break the point after it was in. The units were gas-loaded; nothing more was needed.

The first floor of the next house held seven people, most of them so far gone that I did not speak but simply gave them their shots and hurried on. I had no trouble. The second floor was like the first.

The top floor had three empty apartments, at one of which I had to burn out the lock to enter. The fourth flat was occupied, in a manner of speaking. There was a dead woman on the floor of the kitchen, her head bashed in. Her slug was still on her shoulders, but it was dead, too. I left them quickly and looked around.

In the bathroom, sitting in an

old-fashioned tub, was a middle-aged man. His head slumped on his chest and his wrist veins were open. I thought he was dead, but he looked up as I bent over him. "You're too late," he said dully. "I killed my wife."

—or too soon, I thought. From the appearance of the bottom of the tub and his gray face, five minutes later would have been better. I looked at him, wondering whether or not to waste an injection.

He spoke again. "My little girl—"

His head slumped forward again. I felt his jaw line and dug my thumb into his neck, but could find no pulse.

The child was in bed in one of the rooms, a girl of eight or so who would have been pretty had she been well. She roused and cried somewhat deliriously and called me Daddy. "Yes, yes," I said soothingly, "Daddy's going to take care of you." I gave her the injection in her leg; I don't think she noticed it.

I turned to go, but she called out again. "I'm thirsty. Want a drink of water." So I had to go back into that bathroom again.

As I was giving it to her, my phone shrilled and I spilled some of the water. "Son! Can you hear me?"

I reached for my belt and switched on my phone. "Yes. What's up?"

"I'm in that little park just north of you. I'm in trouble."

"Coming!" I put down the glass and started to leave—then, caught by indecision, I turned back. I could not leave the child to wake up with a parent dead in each room. I gathered her up and stumbled down to the second floor. I entered the first door I came to and laid her on a sofa. There were people in the flat, too sick to bother with her, but it was all I could do.

"Hurry, son!"

"On my way!" I dashed out and wasted no more breath talking, but made speed. Dad's assignment was directly north of mine, paralleling it and fronting on one of those pint-sized downtown parks.

"Here, son, over here—at the car!" I could hear him both through the phone and by ear. I swung around and spotted the car, a big Cadillac duo much like those the Section often used. There was someone inside, but it was too dark for me to see. I approached cautiously until I heard him say, "Thank God! I thought you would never come," and knew that it was he.

I had to duck to get in through the door. It was then that he clipped me.

I CAME to, to find my hands and ankles tied. I was in the second driver's seat of the car and the Old Man was in the other at the controls. The wheel on my side was latched up out of the way. The realization that the car was in the air brought me fully awake.

He turned and said cheerfully, "Feeling better?" I could see his slug, riding high on his shoulders.

"Some," I admitted.

"Sorry I had to hit you," he went on, "but there was no other way."

"I supose not."

"I'll have to leave you tied up for the present. Later on we can make better arrangements." He grinned, his old wicked grin. Most amazingly, his own personality came through with every word the slug said.

I did not ask what "better arrangements" were possible; I did not want to know. I concentrated on checking my bonds—but the Old Man had given them his personal attention.

"Where are we going?" I asked.

"South." He fiddled with the controls. "Way south. Give me a moment to lay this heap in the groove and I will explain what's in store for us." He was busy for a few seconds, then said, "There, that will hold her until she levels off at thirty thousand."

The mention of that much altitude caused me to look at the control board. The duo did not merely look like one of the Section's cars; it actually was one of our souped-up jobs.

"Where did you get this car?" I asked.

"The Section had it cached in Jefferson City. I looked and, sure enough, nobody had found it. Fortunate, wasn't it?"

There could be a second opinion, I thought, but I did not argue. I was still checking the possibilities and finding them between slim and hopeless. My own gun was gone. He was probably carrying his on the side away from me; it was not in sight.

"But that was not the best of it," he went on. "I had the good luck to be captured by what was almost certainly the only healthy master in the whole of Jefferson City—not that I believe in luck. So we win, after all." He chuckled. "It's like playing both sides of a very difficult chess game."

"You didn't tell me where we are going," I persisted. I was getting nowhere fast and talking was the only action open to me.

He considered. "Out of the United States, certainly. My master may be the only one free of nine-day fever in the whole continent and I don't dare take a chance. I think the Yucatan Peninsula would suit us. That's where I've got her pointed. We

can hole up there and increase our numbers and work farther south. When we do come back—and we will!—we won't make the same mistakes."

I said, "Dad, can't you take these ropes off me? They cut my circulation. You know you can trust me."

"Wait until we go full automatic." The car was still climbing. Souped up or not, thirty thousand was a long pull for a car that had started out as a family model.

I said, "You seem to forget that I was with the masters a long time. I know the score and I give you my word of honor."

He grinned. "Don't teach grandma how to steal sheep. If I let you loose now, you'll kill me or I'll have to kill you. And I want you alive. We're going places, son—you and me. We're fast and we're smart and we are just what the doctor ordered."

I did not have an answer. He went on, "Just the same—about you knowing the score, why didn't you tell me, son? Why did you hold out on me?"

"How?"

"I had no idea that a man could feel such peace and contentment and well-being. This is the happiest I've been in years, the happiest since—" He looked puzzled — "since your mother died. But never mind that; this is better. You should have told me."

Disgust suddenly poured over me. I forgot the cautious game I was playing. "Maybe I didn't see it that way. And neither would you, you old fool, if you didn't have a slug riding you, talking through your mouth, thinking with your brain!"

"Take it easy, son," he said gently—and so help me, his voice *did* quiet me. "You'll know better soon. Believe me, this is what we were intended for. This is our destiny. Mankind has been divided, warring with himself. The masters will make him whole."

I thought to myself that that was exactly what the slugs wanted humanity to do—surrender their souls willingly for a phony promise of security and peace. But I did not say so.

"You need not wait much longer," he said suddenly, glancing at the board. "I'll nail her down in the groove." He adjusted his dead-reckoner bug, checked his board, and set his controls. "Next stop: Yucatan. Now to work." He got out of the chair and knelt beside me in the crowded space. "Got to be safe," he added, as he strapped the safety belt across my middle.

I brought my knees up in his face.

He reared up and looked at me without anger. "Naughty,

naughty. I could resent that, but the masters don't go in for resentment. Now be good." He went ahead, checking my wrists and feet. His nose was bleeding, but he did not bother to wipe it. "You'll do," he said. "Be patient; it won't be long."

He went back to the other control seat, sat down and leaned forward, elbows on knees. It brought his master directly into my view.

Nothing happened for some minutes, nor could I think of anything to do but strain at my bonds. By his appearance, the Old Man was asleep, only he wasn't. I knew what was about to happen.

A line formed straight down the middle of the horny brown covering of the slug.

As I watched it, it widened. Presently I could see the opalescent horror underneath. The space between the two halves of the shell widened—the slug was fissioning, sucking life and nourishment out of the body of my father to make two of itself.

I had no more than five minutes of independent life left to me.

HAD it been possible for flesh and bone to break the ties on me, I would have broken them. I did not succeed. The Old Man paid no attention to my struggles. I doubt if he was conscious; the slugs must simply immobilize the slave while occupied with splitting.

By the time I had given up, worn out and sure that I could not break loose, I could see the silvery line down the center of the slug proper which means that fission is about to be complete. That was what changed my line of reasoning, if there were reason left in my churning skull.

My hands were tied behind me, my ankles were tied, and I was belted tight across the middle to the chair. But my legs, even though fastened together, were free from my waist down. I slumped down to get even more reach and swung my legs up high. I brought them down smashingly across the board—and set off every launching unit in her racks.

The Old Man and I were both slammed back against the seats, he much harder than I, since I was strapped down. He was thrown so hard that his slug, open and helpless, was crushed.

It splashed.

Dad was caught in that terrible, total reflex, that spasm of every muscle that I had seen three times before. He bounced forward against the wheel, face contorted, fingers writhing.

The car dived.

I sat there and watched it dive, if you call it sitting when you

are held in place only by the belt. Dad's body had hopelessly fouled the controls; otherwise I might have been able to do something—gotten her headed up again, perhaps—with my bound feet. I tried, but with no success at all. The controls were probably jammed as well as fouled.

The altimeter was clicking away busily. We had dropped to eleven thousand feet before I found time to glance at it. Then it was nine . . . seven . . . six . . . and we entered our last mile.

At fifteen hundred, the radar interlock cut in and the nose units fired one at a time. The belt buffeted me across the stomach each time. I was thinking that I was saved, that now the ship would level off—

And I was still thinking so when we crashed.

I CAME to by becoming slowly aware of a gently rocking motion. I was annoyed by it. I wanted it to stop; even a slight motion seemed to cause more pain than I could bear. I managed to get one eye open—the other would not open at all—and looked dully around for the source of my annoyance.

Above me was the floor of the car, but I stared at it for a long time before I could identify it. By then I was somewhat aware of where I was and what had happened. I remembered the dive and the crash, and realized that we must have crashed not into the ground, but into some body of water. The Gulf of Mexico? I did not really care.

My broken seat belt was flapping above me. My hands were still tied and so were my ankles, and one arm seemed to be broken. An eye was stuck shut and it hurt me to breathe.

I quit taking stock of my injuries.

Dad was no longer plastered against the wheel and that puzzled me. With painful effort, I rolled my head over to see the rest of the car with my one good eye. He was lying not far from me, three feet or so from my head to his. He was bloody and cold and I was sure that he was dead. I think it took me about a half hour to cross that short distance.

I lay face to face with him, almost cheek to cheek. So far as I could tell, there was no trace of life, nor, from the odd and twisted way in which he lay, did it seem possible.

"Dad," I said hoarsely. Then I screamed it. "*Dad!*"

His eyes flickered but did not open. "Hello, son," he whispered. "Thanks, boy, thanks—" His voice died out.

I wanted to shake him, but all I could do was shout. "Dad!

Wake up—are you all right?"

He spoke again, every word a painful task. "Your mother—said to tell you—she was—proud of you." His voice died out again and his breathing was labored in that ominous dry-stick sound.

"Dad," I sobbed, "don't die. I can't get along without you."

His eyes opened. "Yes, you can, son." He paused, then added, "I'm hurt, boy." His eyes closed again.

I could not get any more out of him, though I shouted and screamed. Presently I put my face against his and let my tears mix with the dirt and blood.

Then I passed out again, and awoke in a hospital bed. Mary was kissing my face, bandages and all.

"Dad!" I said, feeling that awful grief again. "He's dead, isn't he?"

A wicked muffled voice answered. "Not a chance, son. I'm just as tough as you are." He grinned weakly at me through the window of an oxygen tent.

I grinned and fell asleep, holding Mary's hand.

WE who are going to clean up Titan are all writing these reports. If we do not come back, this is our legacy to free human beings—all that we know of how the titan parasites operate and what must be guarded against. For Kelly was right; there is no getting Humpty-Dumpty together again. In spite of the success of Schedule Mercy, there is no way to be sure that the slugs are all gone. Only last week a Kodiak bear was shot, up Yukon way, wearing a hump.

The human race will have to be always on guard, especially about twenty-five years from



now, if we don't come back—and the Flying Saucers do. We don't know why the titan monsters follow the twenty-nine-year cycle of Saturn's year, but they do. The reason may be simple; we ourselves have many cycles which match the Earth year. We hope that they are active only at one period of their year; if they are, Operation Vengeance may have easy pickings. Not that we are counting on it.

I am going out, heaven help us, as an "applied psychologist (exotic)," but I am also a combat trooper, as is every one of us, from chaplain to cook. This is for keeps and we intend to show those slugs that they made the



mistake of tangling with the toughest, meanest, deadliest, most unrelenting—and ablest—form of life in this section of space, a critter that can be killed but can't be tamed.

(I have a private hope that we will find some way to save the little elf creatures, the androgynes. I think we could get along with them.)

Whether we make it or not, the human race has got to keep up its well-earned reputation for ferocity. The price of freedom is the willingness to do sudden battle, anywhere, anytime, and with utter selflessness. If we did not learn that from the slugs, well—"Dinosaurs, move over! We are ready to become extinct!"

For who knows what dirty tricks may be lurking around this Universe? The slugs may be simple and open and friendly compared with, let us say, the natives of the planets of Sirius. If this is just the opener, we had better learn from it for the main event. We thought space was empty and that we were automatically the lords of creation. Even after we "conquered" space, we thought so, for Mars was already dead and Venus had not really gotten started. Well, if Man wants to be top dog—or even a respected neighbor—he'll have to fight for it.

Every one of us who is going has been possessed at least once. Only those who have been hag-ridden can know how tricky the slugs are, how constantly one must be on guard—or how deeply one must hate. The trip, they tell me, will take about twelve years, which will give Mary and me time to finish our honeymoon. Oh, yes, Mary is going; most of us are married couples and the single men are balanced by single women. Twelve years isn't a trip; it's a way of living.

When I told Mary that we were going to Saturn's moons, her single comment was, "Yes, dear."

We'll have time to have two or three kids. As Dad says, "The race must go on, even if it doesn't know where."

I am now finishing this report in Space Station Beta, from which we will transship to U. N. S. *Avenger*. We said good-bye to Dad last night at Pikes Peak Port. He corrected me. "So long, you mean. You'll be back and I intend to hang on, getting crankier every year, until you do."

I said I hoped so. He nodded. "You'll make it and so will I. We're both too tough and mean to die. I've got a lot of confidence in you and the likes of you, son."

We are about to transship. I feel exhilarated. Puppet masters—the free men are coming to kill you!

—ROBERT A. HEINLEIN

Shasta Publishers believe

"The best is yet to come!"

and are happy to announce

THE FIRST ANNUAL SCIENCE-FICTION NOVEL COMPETITION

$1000.00 Grand Prize

Open to all. The best *manuscript* will win. No magazine taboos.

We are looking for modern novels so outstanding that they will win new readers for the field of science-fiction, and delight regular readers as well. We want strong characterizations, believable human motivations—exciting, unusual story-telling. A new direction in science-fiction.

The winning manuscript will be published in book form, with an outright grant of $250.00, plus a $750.00 advance against royalties.

RULES: Entries must be postmarked not later than June 30, 1952. Manuscripts must be between 60,000 and 100,000 words. Sufficient return postage must accompany each entry. The decision of the judges will be final. Entries will be judged by Everett F. Bleiler and T. E. Dikty, co-editors of *The Best Science-Fiction Stories* annual anthology.

Only original, unpublished science-fiction novels will be considered . . . But anyone, anywhere is eligible to compete. Promising entries which do not win the Grand Prize will receive consideration for future book publication in our forthcoming lists, receiving regular advances and royalties.

"The best is yet to come!"

Help the best to come about. Send in your novel.

SHASTA PUBLISHERS · 5525 South Blackstone · Chicago 37, Ill.

IF YOU COULD CHOOSE

. . . Which era of the past or present would you pick to live in? What worlds would you want to visit?

A problem, eh? Any era you chose would eliminate all the others, and any worlds you visited would leave the rest unexplored by you.

But you can live in any age, from the beginning of life to the end of history! You can see any planet, from Mars clear out to the limits of the Universe! Stay with them long enough to know them thoroughly, and then . . . on to the next era, the next solar system!

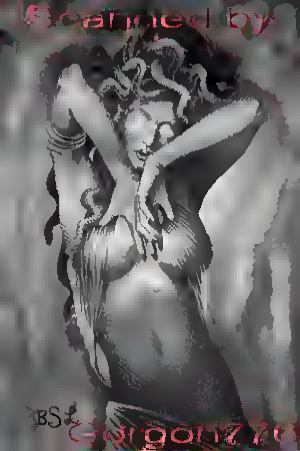
How?

GALAXY *Science Fiction,* of course. Take our monthly 35c tour through all time and all space . . . or to guarantee not missing any, send $3.50 for twelve issues of exciting excursions to . . .

GALAXY PUBLISHING CORP.
421 Hudson Street
New York 14, N. Y.

You'll have the time of your countless lives!

Scanned by



BS Scanner